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ABSTRACT

The purpose of a project was to form a curriculum network whereby information, services, and materials related to disadvantaged persons could be disseminated directly to vocational personnel. Programming information, curriculum materials, instructional resources, exemplary approaches, and evaluation strategies that have worked effectively with disadvantaged learners were solicited from the educational community. Sources were network members, the Inservice Instructional Resource Team from Penn State University, the Pennsylvania Bureau of Vocational Education, the Division of Occupational and Vocational Studies at Penn State, and the Pennsylvania Association of Vocational Education Special Needs Personnel. A curriculum information network was formed consisting of 1,300 superintendents, principals, directors, counselors, and teachers. Six issues of a newsletter entitled the Curriculum Information News were developed. Each newsletter consisted of two sections--descriptions of innovative techniques, exemplary programs, and curriculum materials with name and address of the developer and a special report on one of six topics: a definition of disadvantaged persons, identification of disadvantaged learners, reading as a vocational subject, mathematics in vocational education, limited-English proficiency, and disadvantaged adult learners. (Appendixes include the six newsletters and an article describing the project.) (YLB)

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THE PENNSYLVANIA STATE UNIVERSITY
DEPARTMENT OF VOCATIONAL EDUCATION

FINAL REPORT PA 31.3317

THE FORMULATION AND DISSEMINATION OF CURRICULUM RESOURCE INFORMATION AND MATERIALS FOR VOCATIONAL TEACHERS OF DISADVANTAGED LEARNERS

(Contract Number 93-3010)

Jerry L. Wircenski

Division of Occupational and Vocational Studies
The Pennsylvania State University
University Park, PA 16802

January 1, 1983 -- June 30, 1983

PENNSYLVANIA DEPARTMENT OF EDUCATION
BUREAU OF VOCATIONAL EDUCATION
RESEARCH COORDINATING UNIT
FOR VOCATIONAL EDUCATION

VOCATIONAL – TECHNICAL EDUCATION **Research Report**

CE 038 063

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Recognition and appreciation is also extended to the members of the project advisory committee for their creative suggestions and guidance. Through their dedication of time and concern, much has been accomplished.

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Also, appreciation is extended to Dr. Catherine Batsche who has served as a third party evaluator to this project. Her professional input has been most valuable.

Dr. Jerry Wircenski
Project Director

TABLE OF CONTENTS

		Page
DISCLAIMER		ii
ACKNOWLEDGEMENTS		iii
ABSTRACT		
Chapter		
I	BACKGROUND/PURPOSE	1
II	PROCEDURES	2
	Goals and Objectives	2
	Objective 1: Collection	
	Objective 2: Network and Newsletter	3
III	ANALYSIS	6
IV	CONCLUSIONS AND RECOMMENDATIONS	8
	Conclusions	8
	Recommendations	8
V	DISSEMINATION	9
APPENDIX A	Copies of Curriculum Information News	10
APPENDIX B	Letters of Commendation	47
APPENDIX C	Center Update News Article	51

ABSTRACT

93-3010: The Formulation and Dissemination of Curriculum Resource Information and Materials for Vocational Teachers of Disadvantaged Learners

Jerry L. Wircenski
Division of Occupational and Vocational Studies
The Pennsylvania State University
University Park, PA 16802

$28,981.00
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The purpose of this project was to form a curriculum network whereby information, services, and materials related to the disadvantaged could be disseminated directly to vocational personnel.

Objectives

1. To solicit from the educational community programming information, curriculum materials, instructional resources, exemplary approaches, and evaluation strategies which have worked effectively with disadvantaged learners.

2. To publish and disseminate a curriculum information newsletter to administrators, teachers, counselors, intermediate unit specialists, and other personnel dealing with disadvantaged learners in vocational education.

Outcomes

1. A curriculum network was developed through the vehicle of a newsletter distributed to educators in Pennsylvania.

2. Six editions of the newsletter, Curriculum Information News, were developed and disseminated to 1500 educators in Pennsylvania.

3. Six special reports were developed related to the education of disadvantaged students in vocational classes.

BACKGROUND/PURPOSE

The vocational education of special needs learners has been a major emphasis in curriculum development for the past decade. However, most of the materials that have been developed under the generic title of "special needs" have actually been directed to those working with handicapped students. The development of materials specifically for disadvantaged learners has not kept pace with the development of materials for handicapped learners. Vocational teachers need to become cognizant of programming approaches, instructional materials, support services, and curriculum resources which have been effective with disadvantaged students. Unfortunately, no vehicle existed for the communication of information to educators of disadvantaged students. The purpose of this project was to form a curriculum network whereby information, services, and materials related to disadvantaged could be disseminated directly to vocational personnel.

PROCEDURES

Goals and Objectives

The goal of this project was to improve the quality of services provided to disadvantaged students in vocational education through the dissemination of curriculum information and teaching strategies. Two objectives were developed to achieve this goal:

1. To solicit programming information, curriculum materials, instructional resources, exemplary approaches, and evaluation strategies which have worked effectively with disadvantaged learners.

2. Publish and disseminate a curriculum information newsletter to administrators, teachers, counselors, intermediate unit specialists, and other personnel dealing with disadvantaged learners in vocational education.

The procedures used to implement the above objectives will be described in the following section.

Objective 1: Collection of Curriculum Information

A project coordinator, Anne Camasso, was hired to solicit programming information, curriculum materials, instructional resources, exemplary approaches and evaluation strategies related to disadvantaged learners. Six special topics emerged through the review of the literature and interviewers with selected personnel. They were:

1. definition of academic and economic disadvantage
2. identification of disadvantaged students
3. vocational reading assistance
4. vocational math assistance
5. limited English proficiency students
6. adult disadvantaged learners.

A review of the literature was conducted in each of the six areas and a special report was prepared. The report included additional curriculum resources that teachers could obtain reference to additional information. Each special report was included as a two-page insert in the Curriculum Information News newsletter.

Ideas for successful teaching strategies, curriculum materials, and exemplary programs were obtained through several sources. First, the lead article in Volume 1, Number 1 of the Curriculum Information News described the project and invited network members to submit information about an innovative program or effective practice. Second, the Inservice Instructional Resource Team from Penn State University was asked to identify examplary practices and success stories from the schools they serviced. The six member team provided services to ninety teachers in seven area vocational-technical schools in the center region of Pennsylvania. The team members were, therefore, in an ideal position to observe programs and to identify useful practices and materials. Third, information was obtained from program specialists at the Pennsylvania Bureau of Vocational Education, the Division of Occupational and Vocational Studies at Penn State, and the Pennsylvania Association of Vocational Education Special Needs Personnel (PAVESNP). The information obtained from these three sources were prepared as articles and were published in the Curriculum Information News newsletter.

Objective 2: Network and Newsletter

A curriculum information network was formed consisting of 1300 superintendents, principals, directors, counselors, and teachers. The

percentage of teachers was lower than originally planned due to two problems. First, a comprehensive mailing list of vocational teachers in Pennsylvania could not be obtained. Second, the budget did not include enough funds to cover the costs of printing and mailing a large enough number of newsletters to send to every vocational teacher.

The Curriculum Information News was used as the vehicle for communicating with network members. A series of six newsletters was developed (Appendix A). The newsletter consisted of two parts. The first section included items designed to foster communication among the network members. Descriptions of innovative techniques, exemplary programs, and curriculum materials included the name and address of the developer so that network members could obtain further information. The second section consisted of the special report of one of the six topics identified in objective one. The six inserts were titled:

1. Disadvantaged--What Does it Mean?
2. Identifying Disadvantaged Learners
3. Reading--A Vocational Subject?
4. Mathematics in Vocational Education
5. The Disadvantaged Learner With Limited English Proficiency
6. The Adult Disadvantaged Learner

Fifteen hundred (1500) copies of the newsletter were printed for each of the six issues. Thirteen hundred (1300) copies were mailed to the network members. Two hundred (200) copies were delivered to Clara Gaston, Consultant to the Disadvantaged and Handicapped, Pennsylvania Department of Education, for distribution at future conferences and meetings. The master copy of each newsletter was also forwarded to

the Pennsylvania Department of Education, Bureau of Vocational Education for future duplication purposes.

ANALYSIS

Formal evaluation activities were not conducted as part of the first year, developmental period. However, informal assessment was conducted following each publication of the newsletter. After the publication of the newsletter. After the publication of the first newsletter, the Curriculum Information News was reviewed by the funding agency. Clara Gaston, Bureau of Vocational Education, recommended that the network items be expanded to include secondary and postsecondary news. Subsequent issues of the newsletter included special sections devoted to secondary and postsecondary curriculum suggestions in addition to items from the area vocational-technical schools.

A content analysis was conducted of the first four issues of the newsletter. The results of the content analysis indicated that two articles dealt with a description of curriculum materials, 15 articles dealt with descriptions of effective services at the AVTS, secondary and postsecondary level, and eight articles dealt with information sharing/announcements related to disadvantaged services and conferences.

Three unsolicited letters of support were received commending the newsletter as a communication vehicle. Copies of the letters are included in Appendix B. One of the letters resulted in the enrollment of students in an area vocational-technical school. The writer indicated in a conversation that enrollment had not been considered for students until he read the newsletter article about the exemplary program at the AVTS. Two letters specifically indicated that the information contained in the newsletter was "the kind of help we need."

Finally, the network model has been selected for replication at Indiana University of Pennsylvania. This newsletter focused on curriculum information related to handicapped students.

CONCLUSIONS AND RECOMMENDATIONS

The Curriculum Network project has the potential to be a positive and significant impact on the vocational education of disadvantaged learners. The results of informal evaluation activities indicated that teachers are in need of curriculum information for disadvantaged students. The newsletter had presented information that will respond to this need and encourage teachers to improve teaching activities with disadvantaged learners.

Conclusions

1. Six newsletters were developed and disseminated to 1500 educators in Pennsylvania.

2. Six topical curriculum reports were developed and disseminated as special inserts in the newsletter.

3. The newsletter has begun to have an impact as a communication vehicle for the curriculum network for the disadvantaged.

Recommendations

1. The Curriculum Information News should be continued disseminated in Pennsylvania.

2. The special topical reports should be expanded in future issues possibly to include two reports in each issue.

3. Efforts should be made to expand the curriculum network to include a higher percentage of teachers, e.g. a form could be printed in the newsletter asking for interested teachers to request being added to the mailing list.

4. An evaluation instrument should be developed and included in a future newsletter to determine impact, readership, and interests.

DISSEMINATION

The six newsletters were the vehicle for dissemination. Fifteen hundred copies of each newsletter were disseminated in Pennsylvania. The major dissemination effort, however, was the establishment of the network of professionals who received the newsletter. This network has the potential to be a long-term dissemination impact through the continuous interaction of the professionals involved.

In addition, an article describing the project was included in the Center Update. The article was entitled "A Curriculum Network for Vocational Educators of Disadvantaged Students." A copy of the article is included in Appendix C.

Appendix A

Copies of Curriculum Information News

CURRICULUM INFORMATION NEWS

Vol. 1 No. 1 Jan. 1983

A Curriculum Network for Vocational Educators

Many of the materials developed for special populations in vocational education have been directed toward individuals working with handicapped learners. Few materials have been developed to help those working with disadvantaged learners — students who are economically or academically hindered from succeeding.

This is the first in a series of six newsletters which the Division of Occupational and Vocational Studies at Penn State will produce through funding from Pennsylvania's Department of Education in an attempt to fill this void. The purpose of these newletters is to form a curriculum network whereby programming information, curriculum materials, instructional resources, exemplary approaches, evaluation strategies, etc., which have been used effectively with disadvantaged learners, can be shared by all working with these learners. The newsletter will be distributed to administrators, teachers, counselors, intermediate unit specialists and other personnel who work with disadvantaged learners in vocational settings.

The newsletter will consist of two parts. The first section will be the network news. If you know of or have participated in a unique program, used innovative methods to teach, evaluate or in some other way helped disadvantaged learners reach their potential, tell us about it so we can share it with others in vocational education. Any description that is printed will include the name and address of the developer so that those who want more information can make further contact.

Each issue will also have a section which will concentrate on a topic of concern for educators of disadvantaged learners. These topics might include:

- resources on strategies for identifying disadvantaged learners;
- a clarification and interpretation of the term "disadvantaged" as provided under P.L. 94-482;
- a comparison and contrast of disadvantaged learners and handicapped learners;
- resources on instructional strategies;
- resources for the evaluation of disadvantaged learners in a mainstream setting; and
- resources on related curriculum topics, i.e., math, reading, attitude development, transition skills, etc.

All topics chosen for discussion will be reviewed citing the works of different authors, and each discussion will be followed by a list of resources easily available for future reference.

There will be only six issues of this newsletter, January through June. If you have any information on an innovative or interesting program, please call or send a description to:

Anne E. Camasso
Division of Occupational and Vocational Studies
102 Rackley Building
The Pennsylvania State University
University Park, PA 16802
814-863-2580

Grubb Receives Award

Wayne Grubb, Program Coordinator of Vocational Education in Harrisburg, received the award for outstanding Direct Vocational Special Needs Support Person. The presentation was made at the annual meeting of the National Association of Vocational Education Special Needs Personnel (NAVESNP) in St. Louis this past December. The award is intended to recognize "administrative or nonclassroom" persons who have made a major contribution to the development and/or growth of special vocational needs education. Mr. Grubb was chosen for this honor over nominees from all other states.

PAVESNP
Mid-Winter Conference

The sixth annual conference of the Pennsylvania Association of Vocational Education Special Needs Personnel will be held on March 5, 6, and 7 at the Holiday Inn in Grantville, PA. The theme of this year's conference is "Computer Innovations for Special Needs Instruction."

The pre-conference workshop, allowing hands-on experience in computer literacy and awareness, will be held March 5 (9:00 A.M. to 9:00 P.M.) and March 6 (9:00 A.M. to Noon). Participants may apply for one inservice credit. The main conference proceedings will begin at 1:30 Sunday, March 6 and will concentrate on how to best use computers with special needs students. State-of-the-art technology and ideas on the use of software will also be discussed. Exhibitors from several computer and software companies will be in attendance to demonstrate their newest equipment. On Sunday evening, a round table discussion will be held featuring both teachers and exhibitors — all participants are welcome.

Early registration is necessary if you plan to attend — there is space for only 64 participants at the Pre-Conference Workshop and 80 participants at the follow-up. Registration is on a first-come-first serve basis.

The registration fees are as follows:

Part I Computer Literacy Workshop Registration

PAVESNP Member $25.00
Non-Member $35.00

Part II Follow-up and Application Registration

PAVESNP Member $10.00
Non-Member $15.00

(Send 2 checks if planning to attend both sessions — check(s) will be returned if one or both sessions are filled.)

Meal package and lodging will be paid for by the Conference. Travel will be reimbursed.

For more information contact:

Patricia Hannon, Conference Chairperson
Center 4400
4400 Old Gettysburg Rd.
Camp Hill, PA 17011
(717) 761-6280 Ext. 20
or
PAVESNP Conference
Reschini House
IUP
Indiana, PA 15705
(412) 357-4434

Someone You Should Know

A person with whom you should be acquainted is Clara Lea Gaston, Consultant for Disadvantaged and Handicapped within the Bureau of Vocational Education. Ms. Gaston joined the Bureau in 1979 after working in education, business and industry, and Pennsylvania's Department of Education.

In her position as consultant, Ms. Gaston has many responsibilities including:

- — providing technical assistance in the area of disadvantaged and handicapped either through direct service to school districts or to teacher education institutions.
- — keeping up to date on all federal regulations concerning disadvantaged and handicapped.
- — acting as the liaison person for the Bureau of Special Education and advocacy groups throughout the state.
- — participating in civil rights compliance reviews to ensure that vocational programs comply with the regulations in P.L. 94-142 and section 504 of the Rehabilitation Act.
- — providing technical assistance in the application of federal funds including the regular disadvantaged funds for secondary programs, as well as monies for limited English speaking projects, disadvantaged guidance programs, curriculum development, personnel development, special disadvantaged programs and adult and post-secondary disadvantaged programs.

Ms. Gaston indicated that the 1982-83 funding received for disadvantaged and handicapped programs was allocated in the following manner:

- — 167 programs received some of the federal funds to support, in part or in total, 297 positions across the state,
- — 78% of the funds were retained by comprehensive high schools with the balance going to vocational-technical schools or intermediate units,
- — 58% of the funds were utilized to provide supportive services i.e., remedial reading, remedial math, and individualized instruction for students in a mainstream program,
- — 42% of the funds were used to provide specialized skill training programs.

It is Ms. Gaston's belief that the funding for the 1983-84 school year will remain at about the current level. She does not anticipate any budget cuts in this area.

If you have any questions regarding program problems or changes, Ms. Gaston can be reached at 717-787-8022. Inquiries which concern funding information should be directed to your Vocational Education Field Service Office. In Eastern Pennsylvania, call the office in Allentown (215-434-4420), in Central Pennsylvania call the office in Mifflinburg (717-966-1024), and in Western Pennsylvania call the Ligonier office (412-238-9526).

CURRICULUM INFORMATION NEWS

Disadvantaged — What does it Mean?

When we think of categories of learners, we usually group them according to what we can see — these learners are physically handicapped because they are deaf, blind, in a wheelchair, etc., those learners are mentally handicapped because they have Down's Syndrome or they are slow to grasp the concepts put forth. We do not usually have too many of these learners in any one particular class, but we do have many disadvantaged learners. We see these learners daily — in our classrooms, the hallways, study hall.

When we label someone disadvantaged, we usually mean "disadvantaged in relation to some criteria — educational level, economic standard, value system, cultural or social standard, or any of the criteria individuals use as a yardstick to measure and make comparisons between people" (Wircenski, 1980, p. 45). Much has been written about the characteristics of disadvantaged learners and, as a result, there is widespread variation on what characteristics constitute disadvantaged. These learners could be economically disadvantaged (Fantini and Weinstein, 1968) or culturally deprived (Riessman, 1971). Other researchers contend that they do not have a competitive orientation (Eisenberg, 1967) and that they lack the goals and ambitions found in middle class learners (Seligman, 1968). In other words, disadvantaged learners are economically, culturally, socially and educationally lacking (Oaklief, 1971; White, 1971; and Walsh and Totten, 1975).

In an attempt to put these definitions of disadvantagement into a context that would be usable for vocational educators, the staff of the Bureau of Occupational and Adult Education, Division of Vocational and Technical Education, systematically defined the criteria by which disadvantaged learners should be identified under the Vocational Education Amendments of 1976. This classification system (P.L. 94-482) is designed to include persons who "(1) have academic or economic disadvantages and (2) require special services, assistance or programs in order to enable them to succeed in vocational education programs" *(Federal Register,* October 3, 1977, p. 53851).

Academically Disadvantaged

Individuals who are considered academically disadvantaged are those who "do not have adequate skills to succeed at the time of entrance into or while enrolled in a vocational program. Due to poor education preparation, they require supportive services or special programs to enable them to meet the requirements for entrance into the program or to continue and complete the program" *(Resurge '79,* 1979, p. 22).

There are three groups of learners who would be considered in this category. They include learners who:

— lack reading and writing skills
— lack mathematical skills or
— perform below grade level *(Resurge '79,* 1979, p. 21).

A word of caution, though, is suggested. The developers of these categories indicate:

1. A student may not be classified as disadvantaged because he/she does not have the prerequisites for a vocational program.
2. If, through testing and observation, a person shows little or no manual dexterity or other basic occupational requirements, a student should not be considered disadvantaged but should be counseled and encouraged to enroll in a program in which he/she has the demonstrated ability and interest *(Resurge '79,* 1979, p. 22).

Economically Disadvantaged

Economically disadvantaged learners are described in *Resurge '79* (1979) as those

— whose family income is at or below the national poverty level;
— participants or parent or guardian of the participant . . . is unemployed;
— participants, or parent of participant, is a recipient of public assistance;
— who . . . are institutionalized or under State guardianship (p. 21).

The effects of poverty on successful learning are more difficult to pinpoint than those caused by academic disadvantages. It has been suggested that "One effect may be on attitudes, motivation or behavior which would reflect on a student's ability to succeed in a program, and therefore, reduce chances of subsequent employment *(Resurge '79,* 1979, p. 23).

Summary

Categorizing learners as disadvantaged is a complex venture as differences in the literature bear out. What must be kept in mind, though, is that each learner is an individual

with "unique characteristics, which, for purposes of delivering vocational education programs and services, can be drawn together into a composite profile, but only for purposes of implementation" (Wircenski, 1980, p. 51).

When answering the question, Who are the disadvantaged? perhaps it is Fantini and Weinstein (1968) who offer the best advice. They stated:

> The disadvantaged cannot be defined by the race, residence, jobs, or behavior alone. Although we tend to think first of such districts as Harlem, disadvantaged are to be found also in small towns, in the rural slums of back woods Appalachia, in the Spanish borough of El Paso, on American Indian reservations — or on the fashionable streets of Scarsdale. They are black, white, red, and yellow; with or without parents; hungry or overfed; they are the children of the jobless, the immigrant workers, or the unemployed. The only thing they have in common is that all are left out of the process which purports to carry all human kind, regardless of background: feelings of potency, self-worth, connection with others, and concern for the common good. Anyone deprived of the means to reach out to these human goals is disadvantaged, for it is the purpose of our democratic social institution to advance the development of these human goals for all people (p.5).

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AVTS News

Lehigh County AVTS

The Lehigh County AVTS has a special program for disadvantaged learners. Their alternative education program has been in operation for 11 years. It is an all day program designed for students to receive classroom instruction as well as on-the-job training.

The students spend every third week in the classroom where they meet for seven periods a day. They take classes similar to those taught in a regular high school, but the curriculum concentrates on life skills. For example, they learn mathematics by filling out income tax forms, English and reading by completing job applications, and chemistry by breaking down a product such as aspirin to see which brand would be the best buy and why.

The two weeks between class sessions are spent working. The students are allowed to follow one of two programs, either construction trades or diversified training stations. If they choose the construction trade route, the students become involved in one particular trade, i.e., carpentry, building maintenance, masonry, painting or one of several other possibilities, and work on a crew directed by an instructor from the Vo-Tech school. The diversified training stations involve students working under trained supervisors in such areas as animal care-taking, child care, food service, printing, retail sales, clerical work, etc. In both these programs, the students work only for non-profit organizations, including schools, humane societies, and nursing homes.

Students may stay in the program for a maximum of three years, though some are only referred just before their senior year in high school and therefore attend only one year of the alternative education program. Harry Barron is the director of this program and Pam Hamilton is the counselor. Pam works with the students in counselling and group sessions, to teach them assertiveness training and employability skills. If you would like more information about the program, you may contact Harry Barron at (215) 799-1318 or Pam Hamilton at (215) 799-1308. The address of the program is:

Alternative Education Program
Lehigh County AVTS
2300 Main Street
Schnecksville, PA 18078

Montgomery County

The North Montco AVTS has been experiencing a substantial increase in the number of Special Needs students over the past 5 years — both disadvantaged and handicapped. Because of this increase, the administration felt it was necessary to evaluate the duties and performances of their Resource Persons as well as the effectiveness of the programs they had developed for the students.

Working in conjunction with Temple University, a random sample of current 10th, 11th, and 12th grade students and their parents, teachers at the AVTS, and graduates of the program were interviewed. The interviews were conducted by personnel from the home schools and, in order to insure objectivity, the project was monitored by two Temple University consultants.

Some of the preliminary findings indicate that

- the job placement rate of Special Needs graduates has increased from 81% to 90% in 1982.
- Special Needs students continue to experience satisfaction in their shop placements as well as in their relationships with teachers and resource personnel.
- the parents of the Special Needs students indicate that the success of their child's employment exceeded their expectations. The students themselves felt confident that their training would lead to a job.
- the increase in the number of Special Needs students (167) and in the responsibilities and functions of the Resource Persons indicate a continuing need for the services of these individuals.

Further analysis of this data is being conducted. If you are interested in the results of this study or would like to evaluate your own program, please address your questions to:

John Weaver, Supervisor of Pupil Services
North Montco AVTS
Sumneytown Pike
Lansdale, PA 19446
(215) 242-3132

Bethlehem AVTS

The Bethlehem AVTS has two people who work directly with their disadvantaged students, Tom Ortolano and Dave McCleary. Tom, the special needs counselor/facilitator, spends half of his time helping disadvantaged learners work through any problems they may be experiencing.

Dave McCleary is the remedial shop math teacher at the school and works 100% of his time with disadvantaged learners. These learners are scheduled to meet with him twice a week to learn shop-related math. Aside from their scheduled classes, Dave has arranged for them to meet with him on Fridays if they need extra help. The math classes are taken on the basis of quarters and the students must take the number of quarters necessary to fulfill their shop requirement. The school has been able to purchase computer hardware and software for Dave to use with his students. They use this equipment for both programmed instruction and practice. The availability of this equipment has allowed Dave's students to practice what they have learned and also to receive the needed instruction.

If you have any questions of either Tom Ortolano or Dave McCleary, they can both be reached at the following address: Bethlehem AVTS
3300 Chester Avenue
Bethlehem, PA 18017
(215) 691-2811

The Division of Occupational and
Vocational Studies
102 Rackley Building
The Pennsylvania State University
University Park, PA 16802

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Jerry L. Wircenski, Project Director
Anne E. Camasso, Editor
Diana Chang, Graduate Assistant
Artwork courtesy of Louis Chang

CURRICULUM INFORMATION NEWS

Vol. 1 No. 2 Feb. 1983

SECONDARY/POSTSECONDARY NEWS

The Connelley Skill Learning Center

The Connelley Skill Learning Center in Pittsburgh is a center for the vocational training of adults. Approximately 75 percent of the students attending the center are considered disadvantaged. There are five major areas from which a participant can choose to concentrate at this center, they include: (1) the 13th and 14th Year Vocational Program, (2) CETA, (3) Project Advantage, (4) Health Related Fields, and (5) Adult Basic Education.

In the 13th and 14th Year Vocational Program, the participants have a choice of 23 different skill areas to study. There are no entrance requirements and if a student lives within the city limits there are no tuition charges. The average age of these learners is 26 years. This vocational program has a full two year time limit with approximately 625 individuals enrolled at any given time.

The CETA program operating here offers training in three areas: machine set up, medical clerical and data entry. Attempts are made to have some classes at nonprime times so they are available to a larger number of individuals.

Project Advantage is a tuition free program whereby students can attend a two year program in one of three areas — food service, power sewing or clerical and office skills. This program is marked by a high concentration of teacher/student interaction. Many students finishing this program enroll in the 13th and 14th Year Program for further training in their area of interest, i.e., advanced food service.

The fourth program available at this center is the Health Related Fields. For the past 30 years this has been the largest licensed practical nurse program in the state, training approximately 200 licensed practical nurses per year. New classes start in September and February of each year. There is a tuition charge for this course. July 1, 1983 will mark the reopening of courses in dental and surgical technology.

The fifth program offered through the Center is Adult Basic Education. This is the academic remedial area of the skill center. Between 200 and 230 individuals attend each session of this program, some to obtain their General Equivalency Diploma and others to do remedial work in a specific course of study. The center administers 5000 G.E.D. tests per year.

The center also offers several support programs. Participants in any of the center's programs may participate in parenting and drug and alcohol intervention programs or if needed there is counselling for students with obvious problems, i.e., E.M.R. students. There is also a program for displaced homemakers which in any given year will work with approximately 100 women. Single parents are the primary participants in all the Center's programs. It should be stressed that the Center began training women in nontraditional fields long before it became the popular thing to do.

If you are interested in more information about the Connelley Skill Learning Center or Project Advantage, please contact Mr. William R. Jackson, Vice Principal of Connelley or Mrs. Beverly Hope, Coordinator of Project Advantage. Both may be contacted at:

Connelley Skill Learning Center
1501 Bedford Avenue
Pittsburgh, PA 15212
(412) 566-2000

Harrisburg-Steelton-Highspire AVTS

Stephen Fox, the welding teacher at this AVTS, uses his students own natural desire to compete to help them learn. He posts detailed progress charts of all the activities the students must complete in their three years in the program. These charts show which activities each student has accomplished and includes the grades they received on tests, as a result students know exactly what needs to be done. Students then work with their own group of friends in a form of friendly competition.

Mr. Fox has one particularly slow student with a very low reading level in his class. Before the student joined the class Mr. Fox explained to the other students the extra help this student would need and asked for their help in working with him. The class voted to have the student join the group and each student takes turns working for a day at a time with the disadvantaged learner. This frees Mr. Fox to work with the rest of the class, helps reinforce the learning activity of the student "teacher", and gives the disadvantaged learner the one-to-one help he needs.

Keeping track of his students is another activity in which Mr. Fox plays an active role. He prefers not to use the guidance personnel at his school for job placements, but rather places his own students and visits them and their industry employers to keep track of how they are doing. He also likes to maintain an active record of his graduates — where they are, what they are doing, etc. Most of this visiting and record keeping is done on his own time. If you would like more information from Mr. Fox, he can be contacted at Harrisburg-Steelton-Highspire AVTS

2915 North Third Street
Harrisburg, PA 17110 (717) 234-4590

Clearfield County AVTS

The students in the Clearfield County AVTS who decide to follow the two year textile program will be taught by Mrs. Nina Johnson. In the eleven years Mrs. Johnson has been teaching at the vo-tech her program has evolved into a comprehensive training ground for students who want to attend fashion school or college as well as those who want to do factory or commercial sewing. She has found several teaching strategies which work well with all her students, disadvantaged learners included, and has shared a few of them with us.

In an effort to get all her students to know one another (the students come from five home schools) Mrs. Johnson assigns one student a week to be her assistant. During that week the student must take daily attendance thereby getting to know everyone in the class. The assistant must also help the teacher grade any garments or projects completed by the class. In this way students become aware of (1) what good construction is and how to identify it and (2) the amount and kind of work a teacher must do to keep up with the work of the students.

Mrs. Johnson's grading system is one which is fair to all students. Every project is broken down into its individual steps with a certain number of points assigned for each step. In this way a student may lose points on one or two of the steps because of poor workmanship but receive all the points for other steps. Students see success because the whole garment is not failed for a poorly sewn zipper.

To teach her students their sewing techniques as well as respect for another's property, Mrs. Johnson has each student choose their own material and pattern but another student in the class must do all the construction — cutting, fitting and sewing. She has found the students to be more careful and finish more promptly if they sew for someone other than themselves or a family member.

Mrs. Johnson's motto for her students is "Don't hand in anything for grading that you would not buy." This emphasis on quality workmanship has served Mrs. Johnson and her students well.

If you would like more information on this program contact Nina Johnson at the Clearfield County AVTS

R.D. #1 Box 5
Clearfield, PA 16830 (814) 765-5308

Harrisburg-Steelton-Highspire AVTS

Dave Magaro, the machine shop teacher at Harrisburg-Steelton-Highspire AVTS, has found that separating one corner of his shop into a "theory" room has been very helpful to his students. Mr. Magaro uses this room in several ways. It is in this room that he teaches the fundamentals behind the hands-on experiences the students have. They take notes, complete information sheets and take their tests here. The room contains copies of the four textbooks used in the program and the students are able to use them here. Mr. Magaro also uses this room for audio visual presentations as well as for former students and representatives from industry to come and talk to his current students.

He has found that if he divides each lesson into small sections and spends 30 to 35 minutes a day teaching the whole class in the theory room before they go into the shop the students accomplish much more. Students who need more reinforcement in the fundamentals of the shop work are able to work relatively undistracted in the theory room. Mr. Magaro can work with them if necessary and still not be far from the rest of the students in the shop.

If you would like more information on Mr. Magaro's "theory" room he may be contacted at

Harrisburg-Steelton-Highspire AVTS
2915 North Third Street
Harrisburg, PA 17110 (717) 232-4638

CURRICULUM INFORMATION NEWS

Identifying Disadvantaged Learners

Who are disadvantaged students? Why did they receive this label? Since no specific criteria are available to identify persons who are disadvantaged, "disadvantaged" has become one of the most misunderstood terms in education (Grubb, 1981).

The United States Office of Education has defined disadvantaged in P.L. 94-482 to include persons who "(1) have academic or economic disadvantages and (2) require special services, assistance, or programs in order to enable them to succeed in vocational education programs" *(Federal Register,* October 3, 1977, p. 53851). Using this definition as a guideline, several groups have been identified as possibly including disadvantaged individuals *(Resurge '79,* 1979, p. 27).

- — Persons of all ages with poor educational backgrounds.
- — Semiskilled and unskilled workers receiving less than poverty wages.
- — Persons in correctional institutions or institutions for neglected children.
- — Members of minority groups.
- — Persons who are isolated from cultural, educational, and/or employment experiences.
- — Persons who lack motivation or the necessary attitude to obtain an education or a job skill.
- — Persons who are dependent upon social services to meet their basic needs.
- — Unwed mothers or teenage parents.

It has also been suggested that disadvantaged individuals are found in large numbers in specific geographic locations, i.e. "low income areas, areas of high youth unemployment, public housing developments, urban renewal areas, rurally isolated poverty areas, Mexican-American barrios, Puerto Rican enclaves, American Indian reservations, migrant streams and communities of refugees *(Resurge '79,* 1979, pp. 27-28).

The problem that arises now is identifying the individuals in these groups and areas who are disadvantaged. Unfortunately, most states use two major criteria for identifying disadvantaged students: "(1) students who are behind one or more grades in academic achievement, or (2) students who reside in designated target areas (usually high youth unemployment areas, big cities, Title I areas, and areas of rural poverty)" (Walsh and Totten, 1976, pp. 28-29). The criteria actually applied at the local level differs widely between states and between communities within states. Most states devote little attention to the development of special vocational services for the disadvantaged, that is, services based on specific criteria for the identification of disadvantaged students and the individual assessment of students as either eligible or potentially eligible for such services (Walsh and Totten, 1976). Over half of the project directors interviewed in the Walsh and Totten study (1976) said that they did not believe the students enrolled in their programs were disadvantaged.

In his review of the literature, Wircenski (1980) delineated three basic steps that would alleviate confusion in the learner identification process. They included learner referral, learner assessment, and learner educational planning.

Learner Referral

This step is usually made by academic teachers, counselors, administrators, parents, or support staff. This is an informal process that calls attention to a student who is having academic, economic, or social problems. After the student is identified, most schools have an established, more formal mechanism whereby the student's special needs can be more readily identified (Wircenski, 1980). Phelps and Lutz (1977) and Hyde and Wircenski (1978) have developed forms that can be used for this purpose.

Learner Assessment

The second step in the identification process is to "assess or diagnose the learner's strengths and weaknesses" (Wircenski, 1980, p. 61). This assess-

ment serves two purposes:

1. *". . . to examine the effects, not the causes, of the academic or economic disadvantage"* (Wircenski, 1980, p. 61.) It is essential that the cause of the disadvantage be kept distinct from its effect. Special programs or services may not be required merely because a person is poor, a member of a minority group, or for other *causes*. Programs and services must be designed to overcome specific *effects*, such as limited reading ability, poor communication skills or behavioral problems. It is the effects, not the causes, of the disadvantagement that make individuals eligible for programs under the set-aside and special funds for the disadvantaged and to be eligible the following conditions must be met:
   - — The individual is excluded from a regular vocational program because of the effects of a disadvantagement,
     or
   - — The individual shows evidence of being unable to succeed in a regular vocational program because of the *effects* of a disadvantagement *(Resurge '79,* 1979, p. 21-22).
2. *". . . to provide identification information that is useful for staffing, curriculum, and support service planning"* (Wircenski, 1980, p. 61). Based on the results of the assessment, special services or programs can be identified or designed to accommodate the disadvantaged learner.

Wircenski (1980) suggests that the assessment be carried one step further before describing a plan of action. He believes it is necessary to achieve an appropriate perspective. To do this, the relevant assessment data for the student's profile must be collected and then compared with others who have expressed a similar career choice. Such a comparison may show that a student can be identified as having some type of disadvantage, i.e., poor reading skills. The student may still be able to succeed in a vocational program, however, because the skill deficiency may be acceptable when compared to the skill level of successful students already enrolled or satisfactorily placed on the job. In this instance, the label of disadvantaged is not accurate in the regular vocational program. In another case, however, the student's disadvantage may not be adequate for a vocational program without special support services or remedial instruction.

Learner Educational Planning

The third step in the learner identification process is to develop a learner educational plan. "This plan focuses on the modifications or support services necessary to assist disadvantaged learners to overcome their disadvantages. The central purpose of the referral and assessment process is to inject some form of change into the teaching-learning process. Its most common impact is the utilization of individualized instruction" (Wircenski, 1980, p. 67). The Individual Educational Plan (IEP), as outlined in the Education for All Handicapped Children Act of 1975 (Public Law 94-142), can also be a useful method of identifying disadvantaged learners.

Summary

The disadvantaged populations as identified in *Resurge '79* are made up of individuals — the individuals to whom we must direct our educational efforts. The identification process as outlined above is a useful method for pinpointing the individuals in each group who are truly academically or economically disadvantaged. The purpose of this identification process is to "bring together individual strengths and weaknesses into a comprehensive and coordinated instructional program" (Wircenski, 1980, p. 69).

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The Resource Team Approach

Since federal legislation has increased opportunities for disadvantaged and handicapped students to participate in the mainstream vocational programs many students have entered Pennsylvania's vocational schools. Unfortunately, though, most of the teachers have not been prepared to teach these types of students.

Great strides have been made in serving handicapped learners in the Commonwealth. For example, many area vocational-technical schools have worked in concert with intermediate unit specialists to provide diagnostic analysis of handicappped learners as well as support personnel for the integration of handicapped students into the mainstream of vocational education. On the other hand, services have been extremely limited for teachers of disadvantaged youth. The first endeavor to assist these teachers was funded July 1, 1981 through June 20, 1982 by Pennsylvania's Department of Education. A resource team was developed by the Division of Occupational and Vocational Studies at The Pennsylvania State University to provide inservice training on a one-to-one basis for teachers of disadvantaged learners in the central region of the state. In all, 42 vocational teachers in 6 AVTS schools were served.

This method of inservice training, one-on-one with the teachers in their classroom environment, was positively received. It was much more desirable than the traditional methods of individual courses, seminars, or workshops which usually require that teachers be released from instructional time or vacations to participate.

The resource team concept has been refunded for January through June 1983. In this session it is anticipated that the team will service approximately 60 vocational teachers at 7 AVTS schools in the central region. Some of the services the team members could provide include:

1. the identification of disadvantaged students and a description of individual support services needed.
2. the development of lesson plans and instructional units geared to the needs of disadvantaged students.
3. long-range curriculum modifications.
4. the identification of resources both in school and out of school to assist with instructional implementation.
5. diagnosis of reading materials and individual student reading competencies.
6. the development of competency-based instructional materials.
7. the utilization of alternative grading strategies for disadvantaged learners.
8. incorporation of attitude development and transition skills development as part of the technical skills instruction.

1983-1984 Entitlement Funding

A draft copy of the complete project proposals you intend to submit for 110B disadvantage funds and limited English speaking funds are due in your regional office by April 1, 1983. Entitlement funding will be at approximately the same level as the past year. If you have any questions contact your field service office. The numbers are

Allentown (215) 434-4420 (Eastern Pennsylvania)
Mifflinburg (717) 966-1024 (Central Pennsylvania)
Ligonier (412) 238-9526 (Western Pennsylvania)

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Anne E. Camasso, Editor
Diana Chang, Graduate Assistant
Artwork courtesy of Louis Chang

CURRICULUM INFORMATION NEWS

Vol. 1 No. 3 Mar. 1983

SECONDARY/POSTSECONDARY NEWS

Clearfield County AVTS

Mr. Harry Zimmerman, drafting and design teacher, at Clearfield County AVTS decided there was a definite need to stimulate student interest. In an effort to satisfy this need, Mr. Zimmerman submitted a proposal for $15,954.00 to design and build a solar collector. The proposal was approved with 95% of the money coming from the federal government and 5% from the school district.

The solar collector has both active and passive systems and is hydraulically operated. It rotates with the position of the sun so that from 7 A.M. to 5 P.M. everyday the sun and the panels are always perpendicular. The rotation of the collector increases the efficiency of the electrical panel about 5% and the thermal panel 25% to 30%. The design of the thermal panel is unique in that its corrugations allow cross circulation thus eliminating hot spots and increasing the surface area 40%.

Mr. Zimmerman's senior drafting and design students designed and drew up the plans for the collector and students from the machine, welding, electronics, industrial electricity and masonry shops are doing the construction. The collector is expected to be completed by the end of this school year. Mr. Zimmerman has recently received word that an additional grant for $6,000 has been approved to iron out any problems that might arise after the collector is operational and to closely monitor the operation of the two panels.

The project is designed to supply heat and electricity to the electronics shops in the school. It is hoped that a few years from now returning students can point with pride to the collector and say they helped in its construction. Several of the participating shops have disadvantaged students and they, along with the other students, are working hard to bring this project to completion. If you would like more information regarding the solar collector, Mr. Zimmerman may be contacted at:

Clearfield County AVTS
R.D. #1 Box 5
Clearfield, PA 16830
(814) 765-5308

Jefferson County AVTS

Two years ago, Mr. Jim Wolf joined the faculty of Jeff Tech to help develop a program in lumbering — the first and only program of its kind in Pennsylvania. The students in the program, 25% to 30% of whom are considered disadvantaged, learn such sawmill activities as edging, trimming, and grading lumber and chainsaw maintenance and repair. The woods activities learned include timber felling, skidding, bucking and hauling, some limited surveying, timber appraisal and job layout work.

There is a tremendous need for trained lumber personnel in this part of the state and Mr. Wolf and Jeff Tech are working to fill this need. Although the program is limited, there are plans to expand it so students can learn to operate the heavy equipment used in this industry. Curriculum materials are scarce for this type of program, but Mr. Wolf is working hard to develop the materials he needs to make this program a success. If you would like more information, Mr. Wolf can be contacted at:

Jeff Tech
100 Jeff Tech Drive
Reynoldsville, PA 15851
(814) 653-8265

Columbia-Montour AVTS

Mr. Jack McCardy is in his second year of teaching plumbing and heating at the Columbia-Montour AVTS. It is his belief, that if students *see and do,* they have a better chance of understanding the information being taught. To accomplish this, he uses transparencies, models, demonstrations, textbooks and workbooks. If a student needs more help to master the skill, Mr. McCardy provides individual instruction.

The models Mr. McCardy uses in his class are constructed by his students as their class projects. For example, the students currently are building a furnace which will be used for instructional purposes. Since these projects are usually components of a larger operation, they are not something the students want to keep and when the unit is completed the project can be disassembled and the materials reused.

Mr. McCardy evaluates his students on their projects, daily grades, and tests, and emphasizes that grades are not necessarily dependent on test scores. The projects the students complete are used for training as well as evaluation purposes. If you would like more information on Mr. McCardy's use of models, he can be reached at:

Columbia-Montour AVTS
R.D. #5
Bloomsburg, PA 17815
(717) 784-8040

Harrisburg-Steelton-Highspire AVTS

Mr. Stephen Fox, welding teacher, and Mr. Dave Magaro, machine shop teacher, at Harrisburg-Steelton-Highspire AVTS, have both reported success stories with disadvantaged students in their shops. Mr. Fox tells of a student who graduated from the AVTS last year and is working for a ship building and drydock company in Newport News, Virginia. This student's reading ability was very low and he worked with the remedial reading teacher while at the vo-tech. In welding class, though, he excelled. He was able to duplicate every lesson Mr. Fox taught and was always in the top two or three of the class. The new found success he experienced in this class helped him reverse the role he had always held — for once he was able to brag about his work. The success he found here gave him the confidence he never had before and now all the reports Mr. Fox receives indicate that he is doing a very good job.

Mr. Dave Magaro had two international students in his machine shop for whom English was a second language. One of these students was Korean and since his graduation three years ago he has worked for the AMP Corporation. He has been cited in the company newsletter for his contributions in the development of the components used in Kodak's new disc camera. The second student, who graduated in 1972, was from Hungary. Upon graduation, this student felt it was necessary to repay a debt to the United States, so he spent the next few years in the Marines and after his discharge became a United States citizen. Since his discharge, he has worked for a large machine shop in the Harrisburg area and is currently a foreman in the shop.

All three of these graduates keep in touch with their former shop teachers. Some even come back and talk to current students about their success and the work that is necessary to succeed in their trade. Mr. Fox and Mr. Magaro are both very proud of their students and would be willing to discuss the methods they used to help their students succeed. They can be contacted at:

Harrisburg-Steelton-Highspire AVTS
2915 North Third Street
Harrisburg, PA 17110
(717) 234-4590 (Mr. Fox) and
(717) 232-4638 (Mr. Magaro)

PAVESNP NEWS

Grantville

Eleanor Bicanich, President of the Pennsylvania Association for Vocational Education Special Needs Personnel, has reported that the PAVESNP Spring meeting in Grantville was a great success. Over 80 educators attended the three day computer literacy workshop and conference and evaluated the proceedings with comments such as "Well run," "Learned a lot," "Tiring but great," and "Good hands-on experience."

PAVESNP/PVEC

A pre-conference computer literacy workshop for participants at the Grantville conference is being planned for June 25 and 26 at the Host Farm Resort. This will precede the Pennsylvania Vocational Education Conference (PVEC) which is scheduled for June 26-29. The preconference will take the participants a step further in their computer knowledge. During the PVEC meeting PAVESNP will co-sponsor 5 presentations on special needs and on Monday, June 27, will hold a cash bar and a dinner for its members. The dinner will be followed by board and business meetings. This year PVEC has asked PAVESNP to have an educational exhibit in addition to their usual membership table. For more information contact:

Eleanor Bicanich
Center for Vocational Personnel Preparation
Indiana University of Pennsylvania
Indiana, PA 15705

CURRICULUM INFORMATION NEWS

Reading — A Vocational Subject?

Students who are identified as being academically disadvantaged are behind one or more grade levels in academic achievement and require special assistance in order to succeed in their vocational programs. One area of special concern has been reading skill development. Vocational instructors can address reading problems within their instructional area by employing easily applied procedures to diagnose students' reading problems to (1) analyze grade levels of reading materials and (2) identify reading strategies that promote better reading.

Special reading programs in the 1960s separated reading instruction from specific content area classrooms. Reading class scores were improved, but there was no increase in reading performance in other subjects. Since that time, efforts have been directed to place reading instruction into the content areas (Herber, 1978). Most vocational teachers, however, have not been adequately trained to teach reading; furthermore, some vocational instructors do not *want* or *intend* to teach reading. How many vocational teachers, though, teach vocabulary as part of their curriculum? Vocabulary skills are reading skills and who is better qualified to teach the vocabulary of the trade than the vocational teacher. This insert will deal with the issue of teaching reading from two points (1) diagnosing students and (2) checking the readability of classroom texts.

Student Diagnosis

Students can be diagnosed using several informal techniques. The two methods which will be presented here include the Cloze Procedure and the Informal Reading Inventory.

The Cloze Procedure is a technique for measuring how well students read a particular reading selection. This method determines how appropriate the reading material is in relation to the student's ability. The steps for constructing the test include the following:

- — Select a passage of 300 words that has not been previously read.
- — Keep the first and last sentences intact and delete every fifth word in all other sentences leaving a blank space in their place.
- — Have students fill in the blanks with the exact word deleted.
- — Do not set time limits.
- — Compute the percentage of correct words.

(Estes and Vaughan, 1979)

Those students who score 60% or higher are able to read the material independently. Scores between 40% and 60% indicate that the material is probably suitable for the group and within their instructional area. Scores below 40% indicate that the material is probably too difficult and will cause frustration.

The Informal Reading Inventory (IRI) will provide clues about students' reading comprehension. The diagnosis of reading comprehension can generate inferences about students' reading ability. On the basis of the IRI results, a teacher might establish expectations for students' reading and plan instructional activities appropriate for each learner.

An IRI is designed to measure specific reading skills necessary for the content area classroom. These skills might include:

- — using parts of the book.
- — using resource material.
- — following directions.
- — obtaining information from charts, tables, and graphs.
- — understanding vocabulary.
- — comprehending reading material.

For more information on the IRI and the Cloze Procedure see Estes and Vaughn, 1979.

Readability

We can also examine the different grade levels of written materials. Of the several readability formulas available for approximating the grade level of texts, the Rudolph Flesch Readability Formula (1949) is probably the most widely known. To calculate the grade reading level, do the following to a 5% sample of passages in the book:

I — Count the words in the sample (100 words or the end of the sentence where the word count is closest to 100).
— Count the number of sentences.
— Divide the number of words by the number of sentences.
— Multiply the average number of words in a sentence by 1.015.

Separately

II — Count the syllables in the sample.
— Multiply the number of syllables by 100.
— Divide that total by the number of words in the sample.
— Multiply that total by .846.

III — Add the calculations resulting from I and II

IV — Subtract III from 206.835

The final score translates accordingly:

Reading Ease Score	*Grade*
115-120	1
110-114	2
105-109	3
100-104	4
90-99	5
80-89	6
70-79	7
60-69	8.5
50-59	11
30-49	14.5
0-29	College graduate

Once the reading ease score is found for each passage, it will become obvious that textbooks are not consistantly the same reading level throughout. A text with a mean reading ease score may have some passages written at an elementary grade level and others at a college level. This range can make reading overwhelmingly difficult for the educationally disadvantaged vocational student.

To prepare students to read something that is potentially difficult for them, three steps are suggested:

— prereading activities — familiarize the student with the content of the material and what they can expect to learn.
— guided reading — break down longer passages into small meaningful sections and have short discussions after each section is completed.
— follow-up discussions — ensure student understanding by following each reading activity with a discussion generated by teacher questions (Wircenski, 1982).

Once students' abilities are compared to grade reading levels of reading materials, instructors must adapt reading strategies for improving students' ability to read and learn from the written instructional materials. The following list of reading strategies can be used by the vocational instructor to improve reading in the vocational classroom: label all tools and equipment in the shop; graphically illustrate procedures performed in the class; use transparencies when lecturing; read aloud; encourage notetaking; assign vocabulary puzzles; create a picture dictionary of tools and equipment; use group reading; use oral questioning for specific reading assignments; identify main ideas in reading selections; outline reading selections; construct task analysis of jobs; and require students to read.

Summary

Vocational education plays a significant role in American society, and we cannot lower the standards of vocational education to accommodate disadvantaged students. Instead, we need to address the issues and help disadvantaged students succeed. To accomplish this, the following need to be done:

1. Identify students with reading problems.
2. Administer diagnostic tests to determine the nature of the difficulty.
3. Evaluate, select, and use appropriate materials for correcting minor difficulties.
4. Seek help for students who have severe problems.
5. Use instructional methods and techniques that can be adapted to a wide range of individual differences.

(Ames and Gammon, 1979)

The long term commitment of vocational educators to develop the total individual reminds us that vocational educators are not solely concerned with occupational skill development. Academically, we must expect vocational students to be functionally literate for work and as a result reading should be considered a vocational skill (Evans and Herr, 1978).

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Special Needs Conference

The Region I Special Needs Conference will be held October 27-30 at the Hunt Valley Inn north of Baltimore, Maryland. The Maryland Special Needs Association will act as host for this meeting, the theme of which is "Special Resources for Vocational Students with Special Needs." PAVESNP will conduct a pre-conference workshop for state association and committee persons on recruitment, membership, publishing, officer responsibility and chartering new state associations. A call for papers for the Maryland Vocational Association meeting will be appearing soon. For more information, contact:

Clara Lea Gaston
PA Department of Education
333 Market St., Box 911
Harrisburg, PA 17108

or

Jerry L. Wircenski
The Pennsylvania State University
Division of Occupational
and Vocational Studies
110C Rackley Building
University Park, PA 16802

Materials Available for Disadvantaged Students

The Curriculum Publications Clearinghouse (CPC) at Western Illinois University offers materials for the vocational education of disadvantaged students. The CPC is operated by Western Illinois University through a funding agreement with the Illinois State Board of Education, Department of Adult, Vocational and Technical Education for the purpose of providing locally-developed materials on a cost-recovery basis. These materials include information on program administration as well as curriculum guides and resource books.

CPC has materials available for students with limited English speaking abilities and whose primary language is Spanish, Korean, Laotian, or Vietnamese. Materials written in Spanish and Korean are available for drafting, keypunch, accounting, and data processing programs. Vocational English as a Second Language (VESL) materials are available in the above listed content areas as well as in welding, food service, automotive technology, and secretarial science. Many of these materials have both teacher and student manuals.

Additional materials available for disadvantaged students include *Machine Shop Fundamentals, Part I*, which was developed for secondary and adult limited English proficiency students enrolled in Machine Tool Technology courses. Part I includes chapters on Safety and Shop Rules, Basic Machine Tools, Basic Machine Operations, Measurement, Basic Blueprint Reading, Layout, and Bench Tools. There are 24 competency based lessons which may be used as main tests, supplements to other textbooks, or as the basis for a pre-vocational course in manufacturing trades. The organization, format, and simplified language level of *Machine Shop Fundamentals* make it suitable not only for LEP students but also for other special needs students who have difficulty reading traditional textbooks.

A corresponding *Machine Shop Fundamentals: Part I Student Workbook* has a Technical Vocabulary, Student Questions, Review Questions, and Worksheets for each lesson. The *Machine Shop Fundamentals: VESL Instructor's Manual* includes specific teaching strategies and notes and self-tests. Accompanying *Native Language Supplements* in Laotian, Vietnamese, and Spanish are also available. *Machine Shop Fundamentals: Part II*, with accompanying documents, will be available soon.

Another set of materials suitable for limited English proficient and other special needs students with low reading abilities is the *Multi-cultural, Competency-based, Vocational/Technical Curricula Series*. This set includes nine separate booklets: VESL Guidelines, Clerical Cluster, Welding, Machine Trades, Fiberglass, Automotive Mechanics, Autobody Repair, Maintenance Mechanics, and Food Service. Each booklet contains a competency-based curriculum in VESL; a program introduction and outline in English, Laotian, and Spanish; and a lexicon of technical terms in VESL, English-Laotian, and English-Spanish versions.

Ordering information for these materials as well as a complete listing of available resources may be obtained by contacting:

Curriculum Publications Clearinghouse
Western Illinois University
46 Horrabin Hall
Macomb, IL 61455
Phone (309) 298-1917

The Division of Occupational and
Vocational Studies
102 Rackley Building
The Pennsylvania State University
University Park, PA 16802

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Jerry L. Wircenski, Project Director
Anne E. Camasso, Editor
Diana Chang, Graduate Assistant
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CURRICULUM INFORMATION NEWS

Vol. 1 No. 4 Apr. 1983

SECONDARY/POSTSECONDARY NEWS

Tyrone Area High School

One of the priorities for long range school improvement set by the Tyrone Area School Distrct was the upgrading of the reading and writing skills of all students in grades K-12. To accomplish this goal, Mrs. Carol Blundell, a reading specialist in this school district, worked with all teachers on a subject by subject basis to show them how to teach reading while teaching their subject matter.

The vocational education department is part of the area high school and Mrs. Blundell worked with these teachers as well as all others. She developed a series of five 1½ hour sessions during which time the vocational teachers were released from their classes and substitutes or aides covered for them. In order to make the sessions more relevant for the teachers, Mrs. Blundell used passages and examples taken from the textbooks they used in their classes to illustrate the points she wanted to make. The sessions covered the following topics:

1. *Bringing students and texts together* — This topic covered such concepts as readability graphs, using the Cloze Procedure, text evaluation guidelines and student text surveys.
2. *Strategies for improving vocabulary* — Under this topic she discussed the technical vocabulary in each trade, specialized vocabulary (common words used in a shop context), a structured overview and vocabulary reinforcement activities, i.e. word puzzles.
3. *Strategies for helping students read technical material* — In this session she covered such material as reading illustrations, study guides, the directed reading approach and how to motivate students to read.
4. *Comprehension/study skills* — The topics covered in this session included writing patterns, writing to reinforce learning, using the SQ4R Study Method, developing comprehension skills by using oral questioning, helping disadvantaged students to develop a positive attitude, testing guidelines and helping with reading assignments.

Mrs. Bundell found the vocational teachers to be extremely receptive and willing to try the suggestions she offered. If you would like more information on the sessions Mrs. Blundell presented, she may be contacted at:

Tyrone Area High School
Clay Avenue Ext.
Tyrone, PA 16686
(814) 684-5267

Juniata-Mifflin AVTS

Mr. Ed Moore, Food Service teacher at the Juniata-Mifflin AVTS, has several disadvantaged students in his class each year. A few years ago one of these students made great strides in her work in his class and since she was a graduating senior he wanted to make sure she received some recognition for her achievement; "The Most Improved Senior" award was developed as a result. The student who received the award had never earned any honors before and on awards night she was probably the proudest person there. Mr. Moore has issued this award every year since.

If you would like more information on the award and the criteria on which it is based, Mr. Moore may be contacted at:

Juniata-Mifflin AVTS
Pitt Street and Bellevernon Ave.
Box 1010
Lewistown, PA 17044
(717) 248-3933

Dauphin County Technical School

Mr. Rodney Heininger, carpentry teacher at Dauphin County Technical School, has reported on an art exhibit entitled "Great Ideas." The show, on loan to the school from the Container Corporation of America, consisted of 200 reprints of paintings commissioned by the Corporation.

Students from several of the school's shops worked to get ready for the exhibit. Carpentry students installed and painted 300 feet of Colonial Casing specially cut to hold the pictures on the walls of the cafeteria. Students from the Commercial Arts and Crafts classes wired each picture and attached the wires to special hooks made in the Sheet Metal and Welding Shop.

The presence of this exhibit gave many students the opportunity to practice their vocational training and gave many more the chance to expand their experiences by attending an art exhibit they might otherwise have avoided. The school, too, benefited from the exhibit; it was able to fulfill one of the goals of a quality education — the study of humanities. If you would like more information about this project, Mr. Heininger may be contacted at:

Dauphin County Technical School
6001 Locust Lane
Harrisburg, PA 17109
(717) 652-3170

Harrisburg-Steelton-Highspire

Mr. Paul Sweikert, auto mechanics teacher at Harrisburg-Steelton-Highspire, found that one success can work wonders for a student having academic problems. The third marking period found Angelo Outlaw, an eleventh grade auto mechanics student, only a few points short of making second honors. Because he wanted Angelo to experience this success, Mr. Sweikert offered him a deal — he would borrow the points Angelo needed against his final grade in the upcoming fourth term. Angelo, in turn, had to promise to work hard or else an equal number of points would be deducted from his fourth term grade.

Making second honors has worked well for Angelo; in fact, the teachers at his home school have noted a change in both his work habits and personality. A few weeks into the fourth term Angelo was elected "Student of the Month." Mr. Sweikert reports that Angelo is working hard to hold up his end of the bargain. If you would like more information about Mr. Sweikert's "strategy," he may be contacted at:

Harrisburg-Steelton-Highspire AVTS
2915 North Third Street
Harrisburg, PA 17110
(717) 236-8995

PAVESNP NEWS

PAVESNP/PVEC

Please note — The Computer Literacy Workshop for Vocational Educators of Special Needs Students Part 2 has been rescheduled. Originally planned for June 25 and 26, the workshop will now be held June 29 and 30 *after* the Pennsylvania Vocational Education Conference (PVEC). The workshop will be held at the Host Farm Resort with meetings from 9 A.M. to 2 P.M. on June 29 and 8 A.M. to 3 P.M. on June 30. The workshop, co-sponsored by PAVESNP and PVEC, will consist of 15 hours of hands-on experience using Radio Shack's TRS80 microcomputers. Sessions are only open to those who attended the mid-winter PAVESNP meeting in Grantville. For more information contact:

Eleanor Bicanich
Center for Vocational Personnel Preparation
Reschini House
Indiana University of Pennsylvania
Indiana, PA 15705

International Conference

The Division on Career Development of the Council for Exceptional Children (CEC), in cooperation with the National Association of Vocational Education Special Needs Personnel (NAVESNP) and the National Rehabilitation Association, is planning a joint international conference. The conference, entitled "Career Development and Vocational Education for Handicapped/Special Needs Individuals," will be held October 20, 21, 22, 1983 at the Ramada Inn O'Hare, Chicago, Illinois.

The conference will highlight the following strands in which presentations will be made.

1. Cooperative Efforts with Business and Industry
2. Parental Involvement in Career/Vocational Planning
3. Career/Vocational Assessment
4. Career/Vocational Programming at the Secondary Level
5. Personnel Preparation
6. Creative Work Placements at the Post Secondary Level
7. Community Functional Living Placement
8. Research

CURRICULUM INFORMATION NEWS

Mathematics in Vocational Education

Resurge '79 cites a lack of mathematical skills as a characteristic of disadvantaged individuals. These individuals are said to ". . . have an educational background in mathematics which is not adequate to perform computation activities at the level required by the vocational education program" *(Resurge '79,* 1979, p. 23). According to Zigmond, Vallecorsa, and Silverman (1983)

> Many students have difficulty becoming proficient at mathematics. Some may not acquire basic computational skills. Others may fall behind in their understanding of mathematical concepts. Still others may be unable to apply their math knowledge to solve mathematical problems (p. 203).

Assessing Mathematical Needs

Mathematics is a vital area of instruction in public education. In vocational education, competence in this subject is needed both for job satisfaction and satisfactory job performance. Vocational teachers constantly deal with the problem of relating academic studies with the speciality training they offer and they have found a critical relationship between mathematics training and vocational specialty training (Long, 1973).

Shada (1980) believes that using assessments and learning style inventories will help teachers determine the entry level of the students in the classroom. She also says that

> Teachers should want to know the educational background of their students in order to determine *what* the students know and where to start or continue the learning process of each student. For example, through use of a simple mathematics diagnostic assessment developed by the teacher, the teacher can see what math the student already knows, what areas of math might need to be reviewed, and what math the student does not know. In this way, the teacher will have a place to start, will know in what areas the student is proficient, and both the teacher and the student will feel more confident about what is to be learned (Shada, 1980, p. 232).

An assessment test could consist of the multiplication tables, adding, subtracting, and division problems, reading rulers, measuring or any of the other mathematics related work done in a particular shop.

Mathematics Related Skills

George W. Fair (1980) has suggested using the newspaper as a readily available and an inexpensive learning tool. It has an advantage over other materials in that it is both relevant and interesting. Many programs that have difficulty securing educational materials might consider a subscription to the daily newspaper for some of their students. Below are some examples of how to use the newspaper to assist instruction.

Simple Counting
Find the Classified Section.

a. Look under "cars for sale." Circle all the Camaros for sale. How many are there? Record.
b. Which Camaro is the *most* expensive? Record.
c. Look under "Want ads." How many ads are there for waitresses/waiters? Record.
d. Pick any job you want. How many ads are there for it? Record.

Measuring

a. Find the Food Section.
b. Cut out all ads for flour, sugar, potatoes, and onions.
c. Circle the amount of pounds each weighs. Compare.
d. Which one is the heaviest? Record.
e. Which one is the lightest? Record
f. Now compare two ads of equal amounts of pounds. Example: five lbs. of sugar with five lbs. of potatoes. Which costs more? Record.

Measuring

a. How wide is a newspaper column? How wide are three columns together? Record.
b. Cut out three columns from the front section. Measure their lengths. Record.
c. Which one is the longest? Which is shortest? Record. (Fair, 1980, p. 127-128)

Instructional Practices

All techniques that are used to help with organizational learning carry over to learning mathematics. However, mathematics, like spelling, benefits from repetition. Stern-Otazo (1980) offers some suggestions for practicing math related information

- If students are unable to complete an entire assignment, offer a choice of doing any 10 out of 20 problems or the top or bottom half of a page.
- Have a daily timed quiz (two or three minutes) at the beginning of the class. Each day have the students correct the quizzes themselves. Make the time allotment not quite enough for most of them to complete the quizzes. Give the same quiz four days in a row or give the same problems and only change the numbers. Grade on the last day.
- Concentrate on what the student is ready for.
- By the eleventh grade, bypass what the student is having trouble with by using calculators, tables, pocket charts, and so on.
- Check for the basics like: telling time, reading numbers up to six-place whole numbers and decimals to one-thousandths, knowing basic geometric shapes, reading and using the ruler to 1/32 of an inch, measuring temperature, and estimating time.
- Check for understanding of the math vocabulary. List the vocabulary and define at the beginning of class.
- Present materials in an organized, step-by-step way. List and number the steps.
- Make the symbols clear and understandable.
- If students reverse numbers or mislay them during operations, have them use graph paper or work the operation in a tic-tac-toe configuration.
- Have the student say the problem out loud and verbally indicate the steps.
- If the emphasis is on process and accuracy, allow extra time and the use of a calculator.
- Use oral tests in which students can explain process and pin point problems.
- Talk through word problems; draw a chart to show the reasoning.
- Practice with formulas, and make the formulas understandable by putting them into common terms. (p. 149-150).

Summary

The disadvantaged in the vocational classroom, in most cases, have not learned basic math skills before entering junior high school and therefore are unable to perform simple math problems. When their lack of mathematical skills is coupled with severe reading and comprehension problems, in most instances, written or "story" problems become extremely difficult or impossible (Hickey, 1983).

Mathematics and vocational educators must work together to help all students reach their maximum potential at all levels of instruction. These teachers, in conjunction with counselors and other personnel, must help students acquire a balance between their personal level of mathematics competence and the levels of competence expected of them in their careers. To do this, educators must recognize that they are capable of manipulating their student's interests, their curricula and their instructional strategies to improve service to and development of learners (Long, 1980).

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9. Career Programming at the Elementary Level
10. Special Needs Programming for Minority Persons

For more information regarding this conference, contact:

Patricia Sitlington
Conference Coordinator
Special Education
Indiana University
Bloomington, IN 47401

Textbook Evaluation Guidelines for Teachers

Determining the appropriateness of a textbook for classroom use may sometimes be difficult. To help teachers in this process, Carol Blundell, Reading Specialist at the Tyrone Area High School, offers the following checklist as an aid in this process. She adopted the list from material by Smith, 1978 and Readend et al., 1981.

1. Readability
   - — What is the intended grade level of the text?
   - — Using the Fry Readability Formula (Fry, 1968) or the Flesch Readability Formula (Flesch, 1949) compute the readability estimate for the text.
   - — Is the computed reading level realistic for the students who will be using the text?
2. Content
   - — The book is recently copyrighted and the contents genuinely up to date.
   - — The text is suitable for achieving the stated course objectives.
   - — The content includes motivational and interest factors suitable to the age and culture of the population.
   - — The content leads to a continuing interest in and appreciation for the subject.
3. Format
   - — The material is sufficiently attractive and easy to handle.
   - — The text contains a table of contents, an index, and a glossary.
   - — The table of contents indicates a logical development of the subject matter.
   - — When the text refers to a graph, table, or diagram, that aid is on the same page as the textual reference.
   - — Captions under graphs, tables, and diagrams are clearly written.
   - — Pictures are in color and are contemporary, not dated by dress unless the author's intention is to portray a certain period.
   - — Various ethnic groups, and male and female characters are depicted authentically in the text.
   - — The text suggests out-of-class readings and projects to stimulate additional student interest.
   - — Different typographical techniques are used to help the reader distinguish among ideas and points such as a variety of heading sizes, italics, and boldface type.
4. Organization and Instructional Aids
   - — The main idea(s) and purpose(s) for reading a chapter are stated at the beginning of each chapter.
   - — Difficult new vocabulary words are highlighted, italicized, underlined, or a pronunciation key is included.
   - — Context clues and synonyms for difficult vocabulary are used in the text.
   - — The writing is coherent; that is, ideas are clearly developed and related to each other, within and across sentence and paragraph boundaries.
   - — New concepts are introduced by relating them to previously learned concepts so that the volume of new information does not frustrate students.
   - — There is an appropriate balance between presentation of ideas and practice.
   - — The time the text refers to is practical with real-life situations students can relate to and have an interest in.
   - — The text includes references to, and quotations from, other sources and authorities to support its statements.
   - — The authors include a summary at the end of each chapter.
   - — When there are questions and activities at the end of a chapter, they elicit different levels of thinking ranging from textually explicit to experientially-based, problem-solving tasks.
   - — Differentiated assignments can be made to accommodate various levels of learning.

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CURRICULUM INFORMATION NEWS

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SECONDARY/POSTSECONDARY NEWS

North Montco Voc/Tech

Martin L. Carota, the small engine repair teacher at North Montco, has several disadvantaged students in his class. His methods of helping them learn include using the study module room and having one-on-one learning experiences.

In the study module room, the student can put a tape into a learning module to see and hear a procedure being done. The tapes include a step-by-step explanation of the activity and labeled pictures of all machine parts and tools. After the tape is finished, a worksheet is available to review the lesson. The words on the sheet are those just heard and seen on the tape. The student can complete the work on his/her own or play back the tape to find the answers. Mr. Carota has found that using two senses, hearing and seeing, reinforces the material to be learned.

His second method is to have one-on-one learning experiences for the disadvantaged student. In these cases, the student is assigned to an upperclassman or, in some instances, to Mr. Carota, who works directly with the student.

Mr. Carota has had some successful disadvantaged students. Recently, he worked on a one-to-one basis with a student who had a very short attention span and, because of the learning experiences he had, this student was able to rebuild a tractor. He is a graduating senior. Another student with whom Mr. Carota worked read on a second grade level. It was Mr. Carota's belief that this student would learn no more in a classroom situation, so after a conference with the home school, his parents and other concerned individuals the student was put out on coop. The employer was made aware of the student's limits before placement and has been so pleased with his work that he has offered him a full-time job.

Mr. Carota's use of reinforcement methods and a strong belief in hands-on experience, has been successful for his disadvantaged students. If you would like more information about Mr. Carota's methods, he may be contacted at:

North Montco Voc/Tech
Sumneytown Pike
Lansdale, PA 19446
(215) 368-1177

Juniata-Mifflin AVTS

Foster Muldoon, building maintenance teacher at this vo-tech, has found that his disadvantaged students need a lot of reinforcement to help them remember the names and uses of shop tools. He uses a form of the spelling bee to help them learn this information. One method he uses is to hold up a piece of equipment and have the student name it and tell its use. At another time, he will have the tool's name on a card, the student must draw a card, read the name and pick out the tool.

By using these games periodically throughout the year and increasing the list as the student is introduced to more tools, Mr. Muldoon has found that the students remember the correct name and use more readily. If you would like more information about these methods, Mr. Muldoon may be contacted at:

Juniata-Mifflin AVTS
Pitt St. and Bellevernon Ave.
Box 1010
Lewistown, PA 17044
(717) 248-3933

Edison High School

John Thompson, of the Academy Program at Edison High School, reported on the program's work with Black and Hispanic youth in Philadelphia. The objective of this program is to evaluate the academic skills of 9th and 10th grade students and design, for each student, a course of study that combines academic work with electrical skills. The students receive a strong education foundation, i.e., math and English teachers teach mathematics, vocabulary, etc. that are electrical shop related, history is taught from an industrial point of view.

Students having academic problems attend tutorial classes and may work with the remedial reading teacher. There is a teacher available for the students until 5:00 everyday.

Students who are too young or not yet ready for outside job placements can work in the Edison Electric Shop. An independent division of the Electrical Academy, the Shop is open after school and all day during the summer. Closely simulating an industrial environment, it is student-managed under a Junior Achievement Charter.

Student employees earn the minimum wage. The "factory," as the students call it, thus provides much needed extra income to Academy students and their families. To be hired by the Shop, though, students must maintain good attendance and good grades. Perhaps for the first time, the student sees a direct connection between learning and earning.

The Shop operates without subsidy, performing contract and sub-contract work for local industry. It has been so successful that it gives steady employment to twenty to thirty student employees year-round.

The Academy Program has been in existence for 14 years and in a one year period has a 90% employment rate, a 2% dropout rate and a 90% attendance rate. The Academy is supported by industries such as Bell Telephone, Philadelphia Electric, VIZ Manufacturing and IBM. This support allows the program to give each graduating student a tool box worth about $150.00.

If you would like more information about the Academy Program, Mr. Thompson may be contacted at:

Edison High School
8th and Lehigh Avenues
Philadelphia, PA 19133
(215) 223-4400

Benefits of a Shop Library*

There should be many opportunities for students to read widely in each field. Catalogues, journals, advertisements, guides, instructional manuals, consumer guides — all require careful reading and at the same time do much to enrich the student's background. Each vocational class should have a library of related materials directly accessible to the students. There are several good reasons for setting up such a library.

1. Materials can help students develop an appreciation for the advances in modern industrial products, for workmanship and design, along with developing skill in the fundamental processes of interpreting drawings and illustrations. Students can become literate in a technical field.
2. Materials in a technical library can be helpful to students in determining their capabilities, limitations, and interests for a future vocation.
3. Materials can help students develop planning and problem solving skills.
4. The library is valuable in stimulating interest in related areas of vocational and industrial arts education.
5. Reports from consumer guides, of a new process or a new development in equipment, give a current vibrant aura to the classes. The material is relevant.
6. As students learn to search out answers for themselves in books, they are better able — through reading — to continue their technical education.
7. The inviting do-it-yourself projects in popular magazines and in books often lead to home hobbies.
8. Libraries set up in classrooms, show students that the teacher considers reading to be important.
9. Because the books are readily accessible, students may get "hooked" into reading and begin to develop a habit that will continue throughout their adult years.

*Contributed by Mrs. Carol Blundell, Reading Supervisor, Tyrone Area High School, Tyrone, PA 16686

CURRICULUM INFORMATION NEWS

LIMITED ENGLISH PROFICIENCY

Individuals who come from home environments in which English is not the common language are disadvantaged. These people have experienced such ". . . difficulty with the ability to communicate in English that their capacity to learn is reduced to the point that they do not substantially comprehend the course material" (*Resurge '79,* 1979, p. 22). The number of limited English proficient (LEP) persons in the United States has increased dramatically in recent years and this rise is expected to continue. Unemployment rates are high for these individuals and they experience low levels of economic and occupation success (Phelps and Cordova, 1982).

In her article "Bridging the Communication Gap: Tips for Teaching the LEP Student," Jeanne Lopez-Valadez (1982)* offers some good suggestions for teachers of LEP students. Lopez-Valadez believes that "vocational teachers working with LEP students, . . . , must rely on adapted teaching techniques that facilitate communication. These strategies make use of simplified language, non-verbal reinforcement, multisensory techniques, etc." (1982, p. 25). The following are some examples of how she would modify instruction for LEP students.

Control Language*

By simplifying language, vocational teachers can communicate the same information without diluting the meaning. When lecturing, teachers should try to:

— Keep terminology constant. Begin by using generic terms like screwdriver instead of flathead or Phillips. Use simple terms students may already know such as material instead of fabrics.

— Use simple, short sentences and repeat key terms often instead of using pronouns. Example:
This is a horizontal bandsaw.
The machinist uses a horizontal bandsaw to cut parts to size.
The machinist saws parts to size on a horizontal bandsaw.

— Try to speak clearly and a little slower, not unnaturally slow, though, or the student will not understand other English speakers.

— Present information in small, discrete and sequential steps. It may not be important to explain all the uses, problems, procedures at the same time. For example, one can postpone teaching how to measure all dry ingredients, if the only item used in that lesson is flour.

— Pay attention to non-verbal communication. Use body language and actions to reinforce oral statements. Instead of just telling the student to open a ledger or use the lag screw, open a ledger and show the class a lag screw as you talk about it. Place the student near the front where s/h can observe your face and actions.

Multisensory Techniques*

Using a diversity of techniques that do not rely on only one langauge skill helps to minimize the language barriers for LEP students. It also affords a variety of learning opportunities for students with other learning needs.

— Teachers should increase the use of demonstrations and allow for more hands-on experiences.

— Teachers should limit time spent lecturing and include both verbal and non-verbal activities in each lesson.

— Teachers should provide key information both orally and in writing. When lecturing, for example, write the key words, steps, concepts, etc. on the blackboard as you speak or refer to handouts. Assignments should be given in both written and oral forms. Since not all languages use the same writing system, it is helpful to print when writing on the board. This is also an aid to students with limited literacy skills.

— Teachers should encourage pair or group projects so that peer modeling and tutoring can take place. Whenever possible, pair an LEP student with a bilingual student of his/her own language background.

— Teachers should use different kinds of media to explain a concept or procedure. Teacher-made overheads and slides are particularly helpful. Even films or filmstrips in English can be helpful if they are well illustrated. A picture is worth a thousand words.

Supplement Reading Materials*

The amount of reading required in vocational classes varies among training areas and levels and instructional style. The literacy and language demands of reading technical manuals or textbooks are usually above the level of average students' ability. For LEP students, the reading demands are even greater since they tend to focus on every word without being able to discriminate between unimportant and key words. If alternative teaching methods are not feasible, then the following strategies can be implemented to increase reading comprehension:

— Teach students to use chapter and section headings, graphs, indexes and other resources to skim texts for salient concepts.
— Provide study questions or fill-in-the-blank exercises to use with text.
— Supplement text with study guides, lists of key terms, extra visuals depicting a concept or procedure. These are particularly helpful when translated into the student's native language.
— Tape record key passages for use by LEP students while reading.

Develop Student's Vocabulary*

The main responsibility for developing the LEP student's English proficiency generally rests with an English-as-a-Second-Language teacher or tutor. However, there is much a vocational teacher can do to help the LEP student learn the vocabulary of the vocational field.

— Teachers can label important classroom equipment, tools and work areas.
— Teachers can provide students with key vocabulary prior to each class or lesson. Vocabulary can be introduced using bilingual lists/glossaries, flash cards or slides and cassettes. Key terms should include both technical words new to all students and basic or sub-technical language needed to understand new concepts or procedures.
— Teachers can develop large posters with labeled illustrations or pictures. Catalogues and other promotional materials are excellent sources of visuals.
— Teachers can work with a language instructor to develop coordinated lessons.

Check Comprehension*

Of major concern to vocational teachers is how to ascertain whether students comprehend the instruction. Unfortunately, most vocational teachers will typically ask LEP students if they understand, without realizing, LEP students are apt to say "yes" simply to avoid further query. Furthermore, in some cultures, to tell a teacher one does not understand is tantamount to accusing the teacher of incompetence. More viable alternatives require students to demonstrate understanding or supply information such as:

— Question student about what has been taught. Always start with questions requiring a yes/no answer, then ask "wh" questions and finally how and why questions. For example:
  1. Does the punching station read the program cards?
  2. What basic food group does cottage cheese fall into?
  3. How is paneling applied?
— Ask student to point to a machine part, instrument, location on technical drawings, section of a form, etc.
— Have student show you how to perform a task.

Adapting Testing Strategies*

In evaluating a student's knowledge, oftentimes the testing format or language interferes. As a consequence, one ends up measuring test-taking skills and language proficiency. This is particularly true in testing the LEP student. By selecting a test format that requires less reading comprehension or writing skills, the language difficulty is lowered. Other suggestions to keep in mind in preparing students or administering tests are:

— Provide frequent check points prior to test.
— Inform students of evaluation measure, especially as it relates to technical language. Will the student need to identify an object, name the object, describe the object and its uses, use the object?
— Provide exercises and reinforcement activities using test formats to teach test-taking skills.
— Eliminate time constraints. If extensive reading or essay writing is required, divide test in two. LEP students need more time to read a test and to develop a written response.
— Allow the use of a bilingual dictionary. Most of these resources do not include technical terms nor enough information to answer questions related to procedures processes or concepts.

Summary

The down to earth suggestions presented above serve to help both LEP students and their teachers. Internalizing these techiques will help the vocational teacher convey the language of their vocational subject to their LEP learners. Mutual understanding, though, is needed for a successful learning experience.

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Craft Committees and Vocational Education

Craft committees have contributed much to the success of vocational education and their importance is increasing as our occupational structure becomes more complex. Since the purpose of vocational education is to prepare individuals for entrance into a vocation or to upgrade persons already employed, maintaining a close working relationship between educators and employers is essential. The lines of communication between these two groups must be open if we are to keep our educational programs realistic and contemporary. Educators and industry personnel must work as a team and share the responsibility for training future members of the work force. Effective use of advisory groups will help accomplish this goal.

Several vocational educators have made effective use of their committees and have offered the following as reasons for their success.

1. Craft committee meetings held over the noon hour with lunch provided usually have a higher attendance than those held in the late afternoon or evening.
2. Committee members who can contribute materials for student use and who can see the finished products might be interested in the students who graduate from your program. For example, dress factories may contribute ends of bolts or thread, stores may donate discarded patterns.
3. A newspaper reporter on a craft committee can help keep the public informed of program activities — free advertising of a good program is always beneficial.
4. Suggest that your craft committee members stop by your class periodically, they can see the students at work and possibly observe a future employee.
5. Have an open house for your committee members, students can demonstrate their skills and ask questions of the professionals. The committee can rate the students' work, professional possibilities, etc. The students will be at their best because they could be talking with a future employer.

These are only a few examples of how some educators have made successful use of their craft committees. Putting a committee to good use may be particularly helpful to disadvantaged students. They have the opportunity to demonstrate their skills as well as to practice interacting with a professional in their trade area. Without such contacts some of these students might not get past the interview stage of job hunting.

Strategies for Improving Reading in the Classroom*

1. Make a tape recording of written passages. Allow students to listen and read materials at the same time. (A student could make the tape for you.)
2. Make a classroom library and include journals; catalogues; reference materials; employment related materials such as classified ads, an *Occupational Outlook Handbook*, and other employment related resources.
3. Label all tools and equipment in the shop.
4. Graphically illustrate procedures performed in the class.
5. Use transparencies when lecturing.
6. Construct written directions. Number each task. Use short sentences. Put them in sequential order.
7. Construct a dictionary of technical and common words frequently used in your classroom.
8. Have a spelling bee.
9. Demonstrate procedures. Use a flip chart to illustrate the term that identifies the procedure.
10. Read aloud.
11. Notetaking.
12. Oral reports.
13. Use posters and bulletin boards to create a reading atmosphere.
14. Take a field trip to the library.
15. Have students construct vocabulary games to be used in class.
16. Teach students to break words into syllables.
17. While watching a film, ask students to write down the main idea of specific parts of the film. Have students list details too.
18. Create a picture dictionary of tools and equipment used in the shop.
19. Group reading.
20. Construct cryptograms or word games.

*Thompson, C., B. Wade, and P. Davis. *Health Occupations Reading Strategies* (Vocational Reading Series). Division of Occupational and Vocational Studies, The Pennsylvania State University, 1982.

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Jerry L. Wircenski, Project Director
Anne E. Camasso, Editor
Diana Chang, Graduate Assistant
Artwork courtesy of Louis Chang

CURRICULUM INFORMATION NEWS

Vol. 1 No. 6 June 1983

SECONDARY/POSTSECONDARY NEWS

Huntingdon County AVTS

Mrs. K. Joan Keith, food service teacher at Huntingdon County AVTS, has reported how being involved in a school activity increased the self-confidence of some of her disadvantaged students. Mrs. Keith had two economically disadvantaged students in her class this year whom she persuaded to participate in the FHA/HERO degree program. Working with two other students at their home school, and with Mrs. Keith's support, these four students created a banner which placed 6th out of 40 in the state competition. The results of the successful participation were evident in their personalities and school work. In order for one of these students to attend the state meeting Mrs. Keith found a dress for her to wear. This "new" dress was only the second one the student owned and she was thrilled to receive it.

If you would like more information on how Mrs. Keith persuaded these students to become involved in FHA/HERO she may be contacted at:

Huntingdon County AVTS
Box E
Mill Creek, PA 17060
(814) 643-0951

70001 LTD.

The March/April 1983 issue of *Sharing* published by Project Share (a clearinghouse for improving the management of human services) highlighted the problem of youth unemployment and an organization trying to do something about it. 70001 Ltd. (seventy-thousand-one) is a national nonprofit corporation that trains and places high school dropouts in unsubsidized private sector jobs.

70001 Ltd. was founded in 1969 and grew out of an effort by the Thom McAn Shoe Company to test possible solutions to the problem of high unemployment among high school dropouts. A grant was awarded by Thom McAn to the Distributive Education Clubs of America (DECA) for a pilot project in Wilmington, Delaware. The pilot was a success. By 1976, 70001 had become a private nonprofit corporation, severed its formal ties with DECA and had received the first of several contracts from the U.S. Department of Labor to encourage communities to adopt its model.

70001 is engaged in several human resource development activities, i.e., customized job training, transition-to-work programs, and industry-education-labor councils. Most of 70001's financial support comes from a contract with the U.S. Department of Labor — the balance from large corporations, foundations, and the federal employment training, vocational education, and juvenile justice funds administered by state and local governments.

More than 3000 dropouts between the ages of 15 and 21 enroll in 70001 each year. The participants, referred by government and job agencies, or encouraged by counselors, parents, juvenile justice authorities or probation officers, must sign a performance contract before the start of training agreeing to work toward specific educational, employment, and personal goals.

The training lasts from 2 to 5 weeks and participants receive no stipends or allowances. They attend workshops and seminars that build positive attitudes toward work and teach skills in

— filling out job applications
— reading want ads
— handling job interviews
— good work habits (punctuality and respect toward supervisors and co-workers.)

Many participants also begin studying for high school equivalency examinations.

At the end of the training period employers and program applicants are carefully matched. There is no quota system and employers are not pressured to hire the applicants. Job coordinators continue to work with the participants and employers for up to 9 months to ensure maximum performance. An 80% placement rate for 70001 participants has been constant even when unemployment has been on the rise.

A Department of Labor study of 70001 participants and participants in similar programs found that 70001:

— served young people most in need — minority high school dropouts with poor academic skills and little job experience;
— avoided placing significant numbers of people in "fast food" jobs that are relatively easy to get;
— developed good employment skills and attitudes leading employers to rank 30% of participants as better workers than nonparticipants;
— recruited disadvantaged young people and placed them in jobs without the need for stipends, allowances or other subsidies; and
— was cost effective and adaptable to a variety of settings.

70001's emphasis on employment training partnerships is spawning other initiations. Projects are underway to link motivational activities to summer youth employment programs, vocational education, and adult training. The organization also is developing pre-employment programs for specific industries.

For more information about the program, contact
Mr. Max Elsman
Director of Communications
70001 Ltd.
West Wing, Suite 300
600 Maryland Avenue, S.W.
Washington, D.C. 20024

The Resource Team Approach

In January 1983, The Division of Occupational and Vocational Studies at The Pennsylvania State University received funding to continue providing inservice training on a one-to-one basis with teachers of disadvantaged learners. The six member team served 7 schools in central Pennsylvania from January through May 1983.

At the advisory committee meeting held May 18, 1983, the team members summarized the services they provided during the 5 month period. These services included:

— obtaining resource materials to aid teachers in working with their disadvantaged students;
— discussing methods to increase student involvement in math and reading;
— training teachers to work with the students as opposed to serving as student tutors;
— assisting with teaching strategies and methods to get through to the disadvantaged learners;
— working with teaching the same material through different media, i.e. computers;
— supplementing materials provided by the in-house resource personnel;
— serving as reflective listeners;
— identifying materials to stimulate motivation in disadvantaged learners;
— assisting in the development of a 45-minute survey to identify disadvantaged learners upon entering the shop instead of half-way through the school year;
— providing math and reading skill worksheets.

Overall, the response of the participating schools was positive. Their only wish was that the program could continue in their school next year; nine new schools, though, will be chosen.

Policy and Funding Changes Under the Reagan Administration

In 1982, The Urban Institute published a book entitled *The Reagan Experiment*. In this book the authors examined the shifts in economic and social policy that took place during the first 18 months of the Reagan administration. This article will concentrate on these shifts as they relate to vocational education and programs for the disadvantaged. While this book does not contain any prescriptions, it does provide information to help understand the issues and evaluate the means for achieving various public purposes.

Shortly after taking office President Reagan proposed that the 1982 budget contain a substantial reduction in the federal presence in elementary, secondary, and vocational education. To achieve this, he planned to consolidate many programs and generally reduce all outlays. Forty-four elementary and secondary education programs were consolidated into two block grants to (1) assist states and localities in meeting special needs (i.e., programs for the disadvantaged), and (2) improve the resources and performance of schools. The proposal included a reduction of 25% in overall funding from FY 1981 levels for individual programs.

Major program changes were also proposed for the 1983 budget. Once again these included a block grant for special needs education programs as well as others for vocational and adult education and handicapped programs. Set-asides in the vocational and adult education programs for the handicapped and disadvantaged would be eliminated. The move toward lower levels of funding and more block grants, in combination with a proposal to reduce the Department of Education to a noncabinet level foundation, would greatly reduce the federal presence in education.

Impacts of These Changes

The changes that have been proposed by the Reagan administration and those implemented by

CURRICULUM INFORMATION NEWS

Disadvantaged Adult Learners: Where Can They Go?

Disadvantaged adult learners were disadvantaged students during their youth. Having done poorly in school during their youth, they are now unemployed or underemployed with their lack of skills putting many on public assistance rolls. Since the current administration insists that "able-bodied men" should be working, something must be done to train these individuals. The problem of these disenchanted/ disadvantaged adults must be tackled head-on. The community college is a possible option for these individuals.

Characteristics of Disadvantaged Adults

Charles Monroe (1972), elaborating on the work of Gordon and Wilkerson (1966), suggested four basic characteristics of disadvantaged adults

1. *Socially and Economically Disadvantaged.* They tend to come from families who belong to the lower middle class and working class, who work at semiskilled and unskilled jobs, and who live near the poverty level.
2. *Emotionally Disadvantaged.* They are poorly motivated, and often where motivation does exist, it tends to be unrealistic. Their emotional problems undermine their self-confidence — they ". . . are whipped before they start, so they express a 'well, what's the use' attitude toward education and life in general" (Monroe, 1972, P. 108). They are passive and unmotivated and fail to seek help from teachers and counselors.
3. *Culturally Disadvantaged.* Severe language handicaps prevent disadvantaged adults from actively seeking the information needed to learn.
4. *Academically Disadvantaged.* They have deficiencies in the basic skills of reading, mathematics or English. They also have an inability to use abstract or deductive reasoning effectively.

The information in this insert is based on "The Community College: A Place for Disadvantaged Adults?" by Dr. Jerry L. Wircenski, The Pennsylvania State University, Department of Occupational and Vocational Studies, to be published in the September 1983 issue of *VocEd.*

The Community College

The community college is the fastest growing segment of the educational hierarchy. Grede (1981) believes this expansion is due to the ". . . de-emphasis on liberal arts and transfer-oriented education and an emphasis on occupational and community service programs" (P. 1). Current research indicates that over 50% of all students enrolled in community colleges are participating in occupational education programs.

The community colleges are serving a broader cross-section of the population than traditional colleges and universities. They provide a greater scope and variety of programs ranging from liberal arts and occupational education associate degee programs to adult and continuing education short courses. It is an institution whereby *all* adults may seek an initial education and upgrade or retrain for new employment opportunities.

Meeting the Needs of Disadvantaged Adults

The community college system has done much to encourage disadvantaged students to enroll in their programs. To date, the most successful approach has been to offer special remedial courses or programs. The assumption underlying these programs is that different students should be given instruction in the basic skills which would enable them to enter regular college courses and complete them successfully. A successful program of this kind has several important characteristics.

1. *Assessment:* Each learners' strengths and weaknesses must be determined in order to

identify the most beneficial program. Each adult who enters the community college brings a unique set of cognitive, affective and psychomotor skills. These skills must be accurately assessed before and during enrollment.

2. *Instruction and Instructional Strategies:* Program content must be geared to the immediate needs of the disadvantaged adult in order to establish experiences which create positive results and do not reinforce previous failures.
3. *Coordination:* Successful programs for disadvantaged adults must work in concert with regular programs. Learning experiences in the remedial program must be interfaced with experiences in other curriculum areas. Communication lines among faculty members and departments must be open.
4. *Counseling:* The data gathered during the assessment procedures need to be used throughout each student's academic career. Counseling should take on a holistic approach, that is, one which provides academic, social, and/or emotional support.
5. *Tutorial Support:* Tutoring serves as a back-up to classroom instruction. The tutoring may be labor intensive (using other individuals) or machine-intensive (using microcomputers and computer software are less-expensive alternatives).
6. *Staff and Faculty Meetings:* Staff development activities must be ongoing if high standards of teaching are to be maintained.
7. *Commitment:* Commitment to program success is the prime characteristic of effective programing for disadvantaged adults. Financial commitment must work hand-in-hand with administrative endorsement if the effort is to succeed.

Summary

Disadvantaged adults in our society need the opportunity to develop the skills and learning habits they missed when they were younger. Community colleges, with their ever-increasing presence, are available to provide such opportunities. Further development, though, of their vocational and occupational programs, as well as a stronger commitment from administrators and political/financial leaders, is needed if disadvantaged adults are to have an equal share in an educational opportunity.

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Congress involve both an overall reduction in funds and a change in the regulations governing the expenditure of federal funds. These two categories should be distinguished in evaluating the impacts on the amount of funds flowing to different states and localities and on the services received by target group youth.

Programs for the Disadvantaged. Budget authority for these programs was cut 27% from the FY 1981 service level in FY 1982, and another 28% cut from this new level was requested for FY 1983. Regulations have been significantly reduced and could lead to less targeting and still lower overall levels of funding for target populations. The Congressional Budget Office estimates that a 20% reduction in Title 1 funds translates into only a 1% reduction in total elementary and secondary education expenditures in a typical district. However, it can represent 6% or 7% of all expenditures in the poorest districts. Since several studies indicate that Title 1 is effective in raising achievement, a funds reduction which is not replaced by states or localities could mean impaired educational outcomes for disadvantaged children. If there is a link between educational achievement and socioeconomic status, the nation may be achieving short-run savings at a significant cost in terms of both equity and efficiency.

Vocational Education. Overall program cuts are not likely to result in significant reductions in vocational programs because of the large state overmatch of federal funds. However, a block grant approach that would eliminate set-asides for target groups would tend to blur the focus of federal programs in this area. The target groups — the disadvantaged, the handicapped, those with limited English-speaking ability and women in nontraditional fields — have previously been slighted by vocational programs. If the federal government is going to maintain any role in vocational education, an alternative and perhaps more appropriate strategy would be to eliminate nontargeted vocational aid and maintain a focus on the target populations who seem to benefit from various vocational programs.

Summary

The Reagan administration has proposed stringent cutbacks in federal funding for public elementary and secondary education. If they are fully implemented, FY 1984 funding would be approximately one-half of actual FY 1981 funding levels and one-third of FY 1981 policy levels. The cuts in programs such as Title 1 that are distributed in a way that favors central cities or poor rural areas are likely to have an adverse effect on overall funding for education in these jurisdictions since they are unlikely to be able to replace lost funds. The net effect of program modifications will mean increased flexibility for states but will probably also mean reduced levels of educational resources available to the disadvantaged, the handicapped, and other groups that the federal government has sought to protect in the past. As a result, the federal government would not be providing a significant proportion of funds for elementary and secondary education, nor would it have a clear purpose in its funding. This seems to make sense only if viewed as an interim step on the road to the total elimination of such federal aid.

(The information in the article is based on: O'Neill, J.A. and M.C. Simms. "Education." In J.L. Palmer and I.V. Sawhill (eds.) *The Reagan Experiment.* Washington, D.C.: The Urban Institute Press, 1982.

Curriculum Guides

The Division of Occupational and Vocational Studies at Penn State has obtained copies of Curriculum Guides from the Vocational Education Materials Center at the University of Georgia. These guides, developed for use in post secondary vocational education special needs classes, are available for loan to educators wishing to use them. The following are included in our collection:

Appliance Repair
Auto Body
Auto Mechanics
Carpentry/Cabinet Making
Cosmetology
Data Processing
Diesel Mechanics
Drafting
Drafting/Design Technology
Electrical Technology
Electromechanical Technology
Electronics Technology
Food Service
Graphic Arts/Printing
Industrial Electricity
Industrial Maintenance Vol. 1, 2a, 2b, 3
LPN
Machine Shop
Masonry
Mechanical Technology
Nurse's Aide
Ornamental Horticulture
Radio/TV
Heat/Air
Small Engine Mechanics
Welding

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Jerry L. Wircenski, Project Director
Anne E. Camasso, Editor
Diana Chang, Graduate Assistant
Artwork courtesy of Louis Chang

Appendix B

Letters of Commendation

PHILIPSBURG-OSCEOLA AREA SCHOOL DISTRICT
Administrative Office
200 Short Street
PHILIPSBURG, PA 16866

Phone (814) 342-1030

March 24, 1983

Mrs. Nina Johnson
Clearfield Co. Vo-Tech School
RR 1, P.O. Box 5
Clearfield, PA 16830

Dear Mrs. Johnson:

I was reading the February edition of "Curriculum Information News" published by Penn State and was pleasantly surprised to encounter an article about you and your program at the C.C.A.V.T.S.

I would like to extend my congratulations to you for the program you have initiated and the instructional techniques identified in the article. I am sure the article only highlighted some of your ideas.

Creative teaching such as yours is extremely important to all of us and especially to the students. Thank you for a job well done.

Very truly,

John A. McDannel

Dr. John A. McDannel
Superintendent

JEFF TECH
100 JEFF TECH DRIVE
REYNOLDSVILLE, PENNSYLVANIA 15851-1199

HOMER HORTON, DIRECTOR

814 653-8265

May 9, 1983

Dr. Jerry L. Wircenski
Project Director
102 Rackley Building
University Park, PA 16802

Dear Dr. Wircenski:

Your Curriculum Information News is appreciated. The insert in Volume 1, Number 3, is the kind of help that we need.

May we subscribe to 50 copies of each issue?

Your work is appreciated, Jerry!

Respectfully,

Homer L. Horton
Director

HLH/cd

Jefferson County-DuBois Area Vocational-Technical School
Jeff Tech does not discriminate on the basis of sex, race or handicap

THE SCHOOL DISTRICT OF PHILADELPHIA
DIVISION OF CAREER EDUCATION
OFFICE OF VOCATIONAL EDUCATION
John F. Kennedy Center for Vocational Education
734 Schuylkill Avenue, Philadelphia, Pa. 19146

DR. CONSTANCE E. CLAYTON
Superintendent of Schools

MR. ALBERT I. GLASSMAN
Executive Director, Career Education

DR. MARION B. W. HOLMES
Director, Vocational Education
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TELEPHONE: 875-3808

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Telephone: 875-3807

VEMIS
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VOCATIONAL STUDENT ORGANIZATIONS
Telephone: 875-3817

April 13, 1983

Ms. Anne E. Camasso, Editor
Curriculum Information News
Division of Occupational and
Vocational Studies
102 Rackley Building
Pennsylvania State University
University Park, PA 16802

Dear Ms. Camasso:

Congratulations to you and your staff on the first issue of your excellent newsletter, Curriculum Information News. I enjoyed reading the publication and found it to be both informative and thought provoking. I have passed it on to my colleagues.

I was particularly interested in the AVT News section and have enclosed information about our sex equity project, "Balancing Vocational Options Through Equity," to be considered for inclusion in a future issue.

Again, best wishes and congratulations for a super job! I look forward to the next issue.

Sincerely,

Kezirah M. Vaughters

Kezirah M. Vaughters
Sex Equity Liaison

js

enc.

c: Dr. Marion B. W. Holmes

Appendix C

Center Update News Article

Center Update

PSU

Vocational Teacher Education
Professional Personnel Development

Vol. 4 No. 2 Spring 1983

Center Service Activities

A Curriculum Network for Vocational Educators of Disadvantaged Students

Many of the materials developed for special populations in vocational education have been directed toward individuals working with handicapped learners. Few materials have been developed to help those working with disadvantaged learners — students who are economically or academically hindered from succeeding.

The Division of Occupational and Vocational Studies has received funding from Pennsylvania's Department of Education to produce a newsletter that will attempt to fill this void. The purpose of this newsletter is to develop a curriculum network whereby programming information, curriculum materials, instructional resources, exemplary approaches, evaluation strategies, etc., which have been used effectively with disadvantaged learners, can be shared by others working with these learners. The newsletter is distributed to administrators, teachers, counselors, intermediate unit specialists, and other personnel who work with disadvantaged learners in both secondary and post-secondary vocational settings.

The newsletter consists of two parts. The first section presents the network news. Anyone who has worked with or knows of a unique program, used innovative methods to teach, evaluated or in some other way helped disadvantaged learers, is welcome to submit a description of the program for this section. Any article printed here will contain the name and address of a key person in the program so that others who are interested in more information may make further contact.

Each issue also has an insert which highlights an issue of concern for educators of disadvantaged learners. Topics that have been suggested for these inserts include:

- — resources on strategies for identifying disadvantaged learners;
- — a clarification and interpretation of the term "disadvantaged" as provided under P.L. 94-482;
- — a comparison and contrast of disadvantaged learners and handicappped learners;
- — resources on instructional strategies;
- — resources for the evaluation of disadvantaged learners in mainstream settings; and
- — resources on related curriculum topics, i.e., math, reading, attitude development, transition skills, etc.

The topics chosen for discussion are all reviewed citing the works of different authors. Each discussion is followed by a list of references for those individuals who are interested in more information on the topic.

Continued on page 9

Instructional Resource Team

Disadvantaged Support Services

During the 1981-82 school year, an instructional resource team was selected and trained to travel to six area vocational schools in the Centre Region. The team worked with forty-two vocational teachers in their schools to provide resource/support services for accommodating the special needs of disadvantaged learners enrolled in the regular vocational programs. The May advisory committee meeting, along with teacher feedback, provided the impetus to refund the project for the 1982-83 school year.

In a memo to State Director Olson entitled, "Professional Development Philosophy for Disadvantaged Handicapped" (Feburary 24, 1982), Clara Gaston states, "Federal legislation has increased opportunities for disadvantaged and handicapped students to participate in the mainstream of our vocational programs. However, regular vocational teachers have seldom been prepared to teach disadvantaged and handicapped students." Within this context, the following services currently are being provided to vocational students.

1. The identification of disadvantaged students and a description of individual support services needed;
2. the development of lesson plans and instructional units geared to the needs of disadvantaged students;
3. long-range curriculum modifications;
4. the identification of resources, both in school and out of school, to assist with instructional implementation;
5. the development of competency-based instructional materials;

Continued on page 10

The Pennsylvania Vocational Education Conference

The 1983 Pennsylvania Vocational Education Conference will be held June 26 through June 29, at the Host Farm Resort in Lancaster, Pennsylvania. The conference is sponsored jointly by PDE/BVE, PSBA, PSEA/VPAE, PVA, and VAP. A total of eighty-four different sessions will be addressing current issues in vocational education.

The theme for this year's conference is "Vocational Education Learning to Earn." Approximately seventy commercial and educational exhibits will be featured at the conference. For the first time, half-day and full-day training workshops will be presented by industries such as the Sony Corporation which will address the interaction between computers, video-tapes, and video disks; Ford Motor Company which will highlight automotive and electronics and microprocessors; Heathkit Incorporated which will present robotics; and H. B. Williams and Associates which will address computer-assisted design/computer-assisted management and robotics. An additional workshop will be inter-industry update on auto collision repairs by Blackhawk Frame Incorporated. The health occupations group will be interested in two workshops: Computer Technology sponsored by NCR Corporation and E.K.G.s by the Burdick Corporation. Also, the Oster Corporation will provide a workshop entitled The Food Center which will include a demonstration of food appliance centers in today's homes. All of the workshops will emphasize important new technology in vocational education.

Vocational teacher educators will have an opportunity to hear nationally known vocational educator, Rupert N. Evans, who is from the University of Illinois. Dr. Evans will address the topic of professional development in vocational teacher education.

For additional information about the conference, contact Dr. Thomas Grego at (215) 659-4170 or Dr. Dee Miller at (215) 787-6015.

Technical Updating Workshops

On Friday, April 22 and Saturday, April 23, 1983, a Technical Updating Workshop for Instructors of Automotive Mechanics was held at the Dauphin County Area Vocational-Technical School in Harrisburg, Pennsylvania. The workshop was sponsored by the Ford Parts and Service Division of the Ford Motor Company located in Dearborn, Michigan. The main focus of the workshop was on intermediate to advanced electrical/electronic fundamentals, principles, and applications as applied to the automotive industry. The workshop was attended by thirty-three automotive instructors from across the state.

On Friday, April 29 and Saturday, April 30, 1983, a Technical Updating Workshop for Instructors of Electronic Technology, Electronics, Electronic Communications, and Radio/Television Repair was held at The Pennsylvania State University. Workshop activities focused on topics of intermediate to advanced digital and microprocessor circuits as applied to the electronics industry. A hands-on training session allowed participants an opportunity to work with a microcomputer and its digital and microprocessor circuitry. The workshop was sponsored by the Electronic Industries Association (EIA), a national trade association representing over 300 U. S. manufacturers of electronic products.

The division will be sponsoring several technical updating sessions at the 1983 Pennsylvania Vocational Education Conference at the Host Farm, Lancaster, June 26 through 29, 1983. The following is a list of the sessions and their sponsoring company.:

1. Electronics Training Programs Via Interactive Videotape/Videodiscs/Microcomputers.
   Sony Corporation of America
2. Robotics and Industrial Electronics Hero I from Healthkit.
   A. B. Williams, Jr. and Associates, Inc.
3. Automotive Mechanic Training Programs Via Interactive Videodisc and Microcomputer Managed Information Systems.
   Ford Motor Company
4. 3-Dimensional Computer Aided Design (CAD).
   916-Special Intermediate School District
   White Bear Lake, Minnesota

For additional information, contact:

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Curriculum Network

Continued from page 1

Each issue also contains, as space allows, articles that are of interest to vocational educators. These include articles on such topics as upcoming conferences, proposal deadlines, and conference reviews.

The positive response to the issues already distributed has prompted the project director to request funding to continue the project next year. If you would like more information about the newsletter, please contact Jerry Wircenski, project director, or Anne Camasso, editor. Both are located within the Division of Occupational and Vocational Studies at Penn State.

AG ED Professors Honored for Outstanding Research

Drs. A. T. Mallilo (University of Rhode Island), C. D. Baggett, and S. M. Curtis were honored recently by the American Association of Teacher Educators in Agriculture for the most outstanding research publication in the Eastern Region in 1982. They received this honor for research conducted on the "Status of Pennsylvania Special Needs Students in Agriculture." Their paper was selected over twenty others nominated by the twelve states in the Eastern Region.

The winning publication dealt with quantifying the different populations of special needs students enrolled in the various instructional areas of the vocational agriculture programs, the perceived competence level of vocational agriculture teachers to work with special needs students, and the perceived supportive attitudes of school students and the instructional staff to assist the vocational agriculture teacher to teach special needs students effectively.

The research grew from the lack of visible evidence of improved instruction of special needs students in light of the large amounts of money available to and being received by many school systems. The research project from which this winning publication was taken covers a span of four years and will also look at other aspects of educating special needs students enrolled in vocational agriculture programs. A detailed report of the first phase of the study appears in the March issue of *The Journal of the American Association of Teacher Educators in Agriculture*.